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FOREST PARK COMMUNITY COLLEGE IN ST. LOUIS HAS LAUNCHED A PILOT PROGRAM (THE GENERAL CURRICULUM) WHICH ATTEMPTS TO DEVELOP A MEANS OF MEETING THE REAL COUNSELING AND TRAINING NEEDS OF EDUCATIONALLY DISADVANTAGED STUDENTS AT THE JUNIOR COLLEGE LEVEL. THE DEVELOPMENT OF SUCH STUDENTS OCCURS ON THREE DIFFERENT LEVELS. TEACHING ON THE FIRST LEVEL, "BASIC SKILLS" (MATHEMATICS, READING, AND WRITTEN AND ORAL EXPRESSION), RELIES TO A GREAT EXTENT ON AUTOINSTRUCTIONAL DEVICES. TEACHING ON THE SECOND LEVEL, "PERSONAL ENRICHMENT," EMPHASIZES CORE CONCEPTS IN GENERAL EDUCATION COURSES. COUNSELING ON THE THIRD LEVEL, "ADJUSTMENT TO SELF AND SOCIETY," IS COMMUNITY-CENTERED AND DIRECTED TOWARD ESTABLISHING STUDENT SELF-ESTEEM AND CLARIFYING STUDENT VOCATIONAL GOALS. A BUDGET FOR THE PROGRAM IS PRESENTED, AND SIX APPENDIXES DISCUSS THE PROGRAM'S PURPOSES, METHODS AND THEORY IN DETAIL. (AD)

THE GENERAL CURRICULUM

A Proposal for the Development of a Program for the Educationally Disadvantaged

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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Forest Park Community College

THE GENERAL CURRICULUM

A Proposal
for the Development of a Program for the
Educationally Disadvantaged

Vol. 1

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Two planning conferences with the consultants were held in St. Louis; one in June 1965, for purposes of planning the proposal development, and one in September 1965, to coordinate the conclusions reached. This proposal includes a presentation in each area supported by comments by a consultant.

INTRODUCTION

INTRODUCTION

A distinguishing feature of the community junior college has been its open door admissions policy. It is no coincidence that the development of this institution has paralleled the growing emphasis upon higher education for the masses. The popularization of higher education has resulted in an influx of marginal students who increasingly view the junior college as a logical extension of the secondary school. The junior college consequently is torn between the necessity of maintaining standards to guarantee the employability and transferability of its graduates and the knowledge that it constitutes the last opportunity for formal education most of its students will ever have.

The problem of the marginal student is particularly acute in urban areas such as St. Louis where poverty and de facto segregation guarantee a large number of educationally disadvantaged students who lack preparation for even the least rigorous technical programs offered by the junior college. The fact most frequently overlooked by colleges in facing this problem is that the disadvantaged student represents a select group when viewed in terms of the environment from which he comes. The disadvantaged student may be the first in his family, or even block, to aspire to education beyond high school. His friends and neighbors are bound to watch his upward striving with interest and listen to his reactions with care. The kind of message that he carries back may to a large measure determine the degree of acceptance that higher education will have in shaping our society.

The increasing numbers of disadvantaged students may be viewed either as an overwhelming problem or an enormous opportunity. From either point of view, the degree of challenge for the two year college is beyond question. It should not be overlooked that the form and extent of educational opportunity provided for this group of students will shape the future of the two year college as surely as the future of thousands of disadvantaged students will be shaped by the response of the college.

There are two basic directions observable among two year colleges as they face the opportunity and challenge of the disadvantaged students. The first parallels the university model of sharp retention policies and high attrition. The unvoiced thought behind such policies is that the college's responsibility may be fulfilled by simply providing the opportunity, without concern for whether the opportunity to the individual is real or only an illusion. The second basic direction follows the path already trod by the comprehensive secondary school with the ever increasing number of successively lower level courses to the end that all may complete secondary school. With retention the basic objective, the product is functionally illiterate, unable to find employment and frequently not even able to pass requirements for service in the armed forces.

It should be clear that while this proposal concerns itself essentially with the disadvantaged student, it bears a vital relationship also to the future of the two year college. A beginning must be made to find new adaptive responses that will at one time both preserve the integrity of college parallel/technical offerings and provide countless numbers of disadvantaged students with a genuine opportunity to seek out constructive roles within the context of community, state, and nation.

THE PROBLEM

THE PROBLEM

The true scope of the problem or opportunity presented by the educationally disadvantaged student can only be observed within the context of three distinct points of view.

First and most important is the student, his needs and deficiencies. Second, consideration must be given to the two year college with its pressures, inertias, traditions, and often conflicting demands. Finally, attention must be given to the role of the secondary school in the development of any significant solution.

A central point that should not be forgotten in reviewing this discussion is that most, if not all, existing programs for the disadvantaged student are centered upon institutional requirements rather than student needs as identified by careful study of previous educational experience and environment.

THE EDUCATIONALLY DISADVANTAGED STUDENT

Three general classifications of disadvantaged students can be discerned. The first of these may be called culturally deprived, a term that is both a misnomer and offensive to certain minority groups. The person termed culturally deprived does indeed have a culture; the problem rests with the fact that this culture is so foreign to the one upon which our educational system is based that severe communication problems result.

The second classification of the disadvantaged is comprised of those who underachieve. Here the assumption is that latent ability exists if some one or some method could be found to turn the key so that this ability would be utilized in a complete society.

Finally, there is the classification of students who may be defined as having such low ability for academic work as to preclude success in any type of college academic setting.

There are several limitations inherent in the use of these categories. It is obvious that the first classification will include representatives of both of the latter groups who have the double handicap of being an underachieving or low ability student who is also from a culture that differs significantly from middle class Americana. In addition, use of these terms might lead one to believe that students could be easily categorized into one of the three groups. In actuality nothing could be further from the truth. All three classifications of students appear to be quite similar in terms of high school performance and scores on standardized examinations. Normally, positive identification cannot be made in less than a month to six weeks of close observation in a variety of situations.

Recognizing the limitations of the classification system proposed, it is still possible to use the system to define the types of needs common to disadvantaged students. Daniel Jordan, Danforth consultant in the area of counseling psychology, suggested the following characteristics in a preliminary paper:

CULTURALLY DISADVANTAGED STUDENTS
- Incomplete sense of reality
- Sense of inferiority
- Unrealistic self-depreciation and confusion about one's worth
- Confusion and frustration resulting from the variation between democratic ideals and actual discrimination practices
- Submissiveness and withdrawal tendencies; almost no self-understanding
- Low level of aspiration
- Low self esteem
- Have self-defeating kinds of thinking
- Few psychological mechanisms for surviving failure and no adequate means of internalizing and drawing on experiences of success
- Non-competitive
- Slow learners and workers
- Non-verbal in expression (restricted vocabulary)
- Have inferior auditory discrimination
- Have inferior judgment concerning time, numbers, and other basic concepts
- Learn better by doing than by verbal explanations
- Life is lived primarily in the present, no developed concept of personal future, inability to postpone immediate gratification for the sake of attaining future goal
- Short attention spans where mental activity is concerned

UNDERACHIEVERS
- Guilt-ridden
- Introspective
- Tries to fix blame on external factors
- Can't concentrate
- Inveterate procrastinator
- Escapes through excessive sleep
- Goes on inverted schedule (stays up late, can't get up in the morning)
- Lives a great deal of his life on a verbal plane

STUDENTS OF INNATELY LOW ABILITY
- Deliberate
- Plodding and slow
- Often awkward and poorly coordinated
- Not too articulate when it comes to expressing concepts
- Simple or no sense of humor
- In some cases hard to control when frustrated
- Some cases of persons with low mental ability handle their bodies with great facility

A careful examination of the characteristics of each group reveals a number of similarities as well as significant differences. From the point of view of the student, a valid solution to the problem of improving achievement would require a program suited to individual differences. It will be demonstrated in the next section of this proposal that programs centered around institutional requirements do not normally make such provisions.

To further clarify the nature of the group of students to which we refer as disadvantaged, let us briefly survey their performance in terms of standardized examinations. In general ninety-five percent of the community colleges which offer programs for the disadvantaged today employ some type of standardized examination as a major selection criterion. The median cutting point is the tenth percentile. Since norms used are frequently other than those developed by the institution itself, such programs may enroll more than ten percent of the institution's enrollment. Further, it is probable that at least one-third of students entering junior colleges today could be described as high risk students with unrealistic aspirations for whom some type of special program could be quite desirable. Medskar points out that on a national basis, two-thirds of students entering two year colleges enroll in college parallel curricula with the avowed goal of transfer; only one-third, however, actually do transfer. Records of what happen to the one-third who do not are fragmentary, but attrition rates suggest that most of them become discouraged and quit, little better off than when they entered. Since community colleges now enroll more than a million students and are growing rapidly, the number of students who fall into the high risk group due to one of the three types of disadvantages mentioned already exceeds by conservative estimate one quarter of a million students and is multiplying at an increasing rate.

THE INSTITUTION

Many educators claim that the two year college at the present moment is guilty of preaching one philosophy and practicing another. An overview of programs for the disadvantaged offered by those institutions indicates that while administrators express high interest and concern for the disadvantaged, no consistent attack has yet been mounted in order to seek a realistic solution capable of serving as a model to the field.

The study by Schanz (reported in detail by Anderson in Appendix A) indicates that ninety-one percent of the administrators of public two year colleges believe in and practice the open door philosophy of admitting all who come without regard to ability. Yet only twenty-one percent offer special programs of any variety and only twelve percent require that disadvantaged students avail themselves of such programs. At the same time nearly half would like to see special programs available.

Among those institutions which offer special programs, three basic patterns emerge. The first and by far the most common of these places heavy reliance upon group remedial instruction. The theory assumes that it is possible to take students who range in ability in a given area from third to ninth grade levels, teach them as if a common denominator existed within the group for one or possibly two semesters and thus remedy all deficiencies that have accumulated during the previous twelve years. This approach engenders false hopes, wastes time, and actually prevents those with moderate disabilities from proceeding at the rate at which they are capable. The students who survive group remedial instruction at the college level are, for the most part, those who were misclassified to begin with.

The second basic pattern is really a variation of the first in which group remedial instruction is supplemented by group guidance courses and by general education courses such as social science, personal finance and others. Normally, the remedial courses and the supplementary courses are taught by instructors whose principal interests and major loads are carried outside the disadvantaged program area. Instructors are solicited on a voluntary basis to teach one course of this type at Wilson Junior College in Chicago and at Los Angeles City College.

In other institutions, the assignments are rotated among the staff with the understanding that each must take his turn at the distasteful task. In neither instance is there likely to be complete commitment or adequate background for teaching the disadvantaged student. Despite this handicap, where the instructor is enthusiastic (as was observed in Chicago and Los Angeles) many of the students were highly motivated and worked hard.

The third basic approach involves complete dependence upon programmed materials until the student has reached the minimum acceptable level required for admission to a regular class. Despite the fact that this approach, which is found predominantly in North Carolina, makes no provision for oral or written communication or for enhancement of self concepts, it is in many respects the most promising of the three. Here at least, provision is made for the specific diagnosis of differences and for the tailoring of an individualized program for each learner designed to permit him to begin at a level where success is assured and to proceed through an orderly sequence at his own rate to a point where he may be able to profit from group instruction.

It can be seen that the first pattern, group remedial instruction, is not really a program at all, but an excuse for the lack of a program. The second approach is a loosely organized program, but is arranged along traditional lines and on faulty hypotheses.

The final approach, while the most promising of the three, suffers from the inability to provide certain types of human experience that are essential to the disadvantaged student.

Examination of these programs reveals one further factor of considerable interest. In each instance, the level of financial support for these programs either parallels or is less than the amount that it takes to educate students in the college transfer curriculum. If the assumption is made that disadvantaged students, as a group, require additional attention and special techniques, then it becomes obvious that any program which operates at the same or at a lower level of support than the transfer program is based upon institutional requirements with only peripheral attention to student needs. This point is supported by an examination of the evaluative statements which indicate that a major value of such programs is the improvement in quality of work in the regular courses.

In fact, a careful review of existing major programs appears to indicate that in only one instance was there significant additional expense involved in terms of low student-counselor ratios and other indices of expenses above and beyond those that would have to be incurred under any circumstances. It is particularly interesting to note that this effort has occurred in New York City with the College Discovery Program, and has been undertaken by institutions that do not profess or practice the open door philosophy.

To summarize, then, the programs available for disadvantaged students in the open door community college today are underfinanced, lack a recognizable theoretical framework, rely for the most part upon outmoded and unsuccessful techniques;, and are designed more frequently to improve the quality of work in regular courses than to meet the needs of the disadvantaged student. At the same time, administrators of two year institutions express concern about the increasing number of low ability students applying for admission. It seems evident that the public has assumed that the two year college is an open door institution. It remains to be seen how long it will remain acceptable to provide stop-gap measures which give the illusion of opportunity without genuine success.

THE PUBLIC SCHOOLS

The disadvantaged students seeking admission to college are the products of a culture and a school system. It is frequently incomprehensible to the lay public why the problem cannot be resolved by improving the "quality" of education at the elementary and secondary level. Many individuals see programs at the college level as overt criticisms of public school education. The changes that have occurred in the role of the public schools as a result of legislation and technological developments are overlooked. When a high school education was not a prerequisite to gainful employment and before the time of widespread concern about drop-outs, students who could not pass traditional academic disciplines could be held up until they left school. Public pressure forced the high schools to offer new educational programs so that all might graduate and is now creating a situation where all must go on to college. Consequently, the two year college must be prepared to offer new types of education. Most students who could not profit from the traditional approach in the secondary schools will not profit from a similar approach in the two year college. Nor will accumulated deficiencies be easily overcome.

The issue then is not how high schools can prepare all students for success in a liberal arts curriculum, but how the two year college may adapt its curriculum to serve the spectrum of students streaming from the secondary schools. Ideally, these adaptations should be based upon a knowledge of student needs and previous experiences instead of institutional convenience. With this in mind, Danforth consultant Adam Casmier, was asked to prepare the following review of certain characteristics of the St. Louis Public School approach for this group of students.

A. Elementary School - The Banneker District

Many of the students who will enroll in the program are graduates of elementary schools that comprise the Banneker District. The concepts that underlie the educational techniques employed are as follows:

1. There is no attempt at curriculum revision.
2. The assistance of parents is achieved by frequent home visits and community gatherings.
3. Frequent visits are made to the schools by successful businessmen, skilled workers, and other members of the community to inspire the pupils to become self-motivated.
4. Pupils are taken on numerous trips to places that offer cultural environment - museums, symphony concerts, cafeterias.
5. Assemblies, posters, contests, and radio programs are utilized as a means of motivating pupils to achieve scholastically.

B. The High School

The student is the product of the track system that was installed in the St. Louis Public Schools in the late 1950's. In this system incoming ninth grade pupils are ranked according to their scores on the Iowa Basic Skills test. Those pupils who graduate from the eighth grade with an English and Math score of 8.9 or higher are placed in track I; those who score from 7.5 to 8.8 are placed in track II; those who achieve scores of 6.0 to 7.4 are placed in track III.

Obviously, the track I students are presumably able to perform up to standard in high school. Thus, it seems reasonable to assume that the majority of the students with which we will be concerned will come from tracks II and III.

The track III students (and some in track II) are frequently victimized by poor teaching, since the better teachers are often assigned the track I classes. The students have little initiative because the Banneker program is not a part of the high school program. Frequently, the students become uninterested in their studies and achieve at a level that is significantly lower than their potential.

The typical high school graduate has had few "middle class" cultural experiences. Often he is openly antagonistic to fine art and classical music. His reading has been in time worn, watered down classics such as Ivanhoe, A Tale of Two Cities, Silas Marner, and The Red Badge of Courage. Not only do these works present a way of life that is completely alien to him, but he may have been so poorly taught that the universal human values did not reach him.

Because of these experiences literature becomes a chore; further, because the student seldom reads at a level the books require, reading itself is often distasteful to him. The student usually speaks non-standard English because he is the product of an environment in which this is the only method of oral communication. The grammar that is taught has little effect on his mode of speaking, because it is seldom taught as a function of speech. Furthermore, because he has not had sufficient opportunity to write in high school, the student is unable to express his ideas in any coherent form; he usually dreads writing because he is aware of his shortcomings.

While it is evident from reviewing this brief description that improvement is certainly possible at all levels of education, it should be equally evident that no one sector of education today has the total answer to the problem of the disadvantaged student. Further, it should be emphasized that education as a social institution can contribute only a part of the solution to the problem. As will be indicated in this proposal, a complete solution must seek the involvement of a variety of community agencies at all levels in addition to a total commitment on the part of education; a commitment that appears at present to be lacking.

THE PROPOSAL

THE PROPOSAL

There exists an urgent need for a program that will replace the illusion of the open door with genuine access to the values of higher education and better life for the disadvantaged students who approach the two year college in ever increasing numbers. Forest Park Community College of The Junior College District of St. Louis - St. Louis County studied the problem for more than a year and as a result of this study has launched a pilot program termed the General Curriculum. The experience gained in initiating this program, the demonstrably favorable attitude on the part of Junior College District instructors, administrators, officers and Trustees, combined with the reservoir of talent provided by consulting contacts at five major universities, would seem to provide the framework within which a major attempt could be made to structure a realistic program for the disadvantaged student.

OBJECTIVES OF THE PROGRAM

Two categories of objectives can be discerned. The first involves disposition of the student and may be summarized by a single term, placement, which might take any of the following forms:

A. Placement in a specific curriculum offered by the college.

B. Placement in a training program offered within the community but not under the auspices of the college. (This program might be in Manpower Development Training courses, apprenticeship programs, area vocational school offerings or other training opportunities.)

C. Placement directly on a job that offers possibilities of advancement and appears to be consistent with the student's interests and aptitudes.

It should be noted that one type of placement would not be given preference over another except as it might better meet the needs of a given student. Further, there would be a maximum attempt to utilize and mobilize all the services within the community to improve the opportunities for the disadvantaged. Retention in formal classes for a predetermined length of time would not be considered as a criterion of success. Instead, the program would emphasize the identification by the student of a specific vocational goal followed by acceptance of a rational procedure for attainment of that goal. Since many students enter junior colleges with unclear vocational objectives, the General Curriculum could serve as a specially controlled holding program to permit students of uncertain abilities and objectives to experience college without the threat of immediate dismissal. Through this approach a major source of technical trainees could be developed.

A second category of objectives concerns goals which might be met concurrently by the program and would broaden on a national scale its scope of applicability and usefulness. These might include:

A. The development of a model program for educationally disadvantaged students with a consistent theoretical rationale that could serve as a guide for the administrators and staff personnel of other institutions confronted by similar conditions.

B. The establishment of an active program of community involvement seeking to provide leadership and direction to a multitude of community, state and federal organizations having an interest or a responsibility in this program. Such a blueprint for community mobilization should have far reaching consequences.

C. The offering of an internship experience for present and prospective instructors interested in teaching the disadvantaged student.

D. The development of curriculum materials and instructional aids specifically designed with the needs of this group of students in mind.

E. The evaluation of the effectiveness of materials and techniques developed for the disadvantaged student.

F. The development and dissemination of information concerning the characteristics of disadvantaged students and successful methods of teaching them.

THE PROGRAM

The proposed program is organized around three different levels of development. A weakness of existing programs is that they fail to recognize that developmental students are likely to need simultaneous assistance in a number of areas to give them any chance at all of overcoming major deficiencies. The first level of development can be entitled "basic skills" and includes reading, mathematics, and written and oral expression. The second developmental area can be termed "personal enrichment" and encompasses a minimal body of knowledge necessary for successful participation in the mainstream of American cultural life.

A final developmental area is defined by the phrase "adjustment to self and society." Included within this level of development would be such objectives as enhancement of self image, relation of the self to others, comprehending one's role in society, selecting a realistic occupational objective, and identification of a rational procedure for attaining objectives.

While there is a certain degree of overlap between these developmental areas, the disadvantaged student needs sufficient concentrated assistance in each to merit the organization of a three-pronged program designed to achieve maximum progress in each area. While the three types of assistance will be discussed as if they were somewhat discreet efforts, it should be emphasized that there is a high degree of correlation between the three in practice. This correlation is depicted in Appendix E concerning the Pilot Program.

Basic Skills

It has been pointed out earlier in this proposal that group remedial instruction is doomed to failure at the college level because of the enormous degree of heterogeneity in the groups of disadvantaged students. Nevertheless, some way of improving basic skills has to be a part of any program for the disadvantaged, for without these skills no gates will open and the student will leave the college after a period of time, as he left the high school, functionally illiterate.

The solution to the problem of basic skills is offered through the use of programmed instruction. The Forest Park Community College has already established a prototype Programmed Materials Learning Laboratory (PMLL) modeled after those developed in North Carolina. There are several important principles that make the programmed approach extremely promising in terms of the disadvantaged college student. To begin with, the instruction is individualized. Each student is tested and works on material that he can master. He proceeds at his own rate and does not have to devote his time to areas with which he is already familiar. In addition, he must pass periodic examinations, spaced for maximum reinforcement, at an acceptable level or return and restudy the same material. Because the student defines his objectives at the time he enters the laboratory, he can be told where he is and how far he must go to reach his objective. The burden of responsibility for assimilating the material is placed on him. He must take an active part in the learning process, rather than sit back passively while the teacher does the work. Finally, he can see his progress toward a defined objective on a day-to-day basis. This is extremely important to the disadvantaged student who does not normally share the middle class value of postponement of immediate self-gratification to achieve long range awards.

To reach maximum effectiveness, a number of refinements must be made to the PMLL. There is a need for continuing evaluation of new commercial materials to keep the laboratory up to date. Currently, materials are available in a broad range of levels for mathematics, English, social studies, reading, chemistry and others. However, specific needs of the students at this college may call for additional materials, some of which may have to be developed locally. The present laboratory makes no provision for written or oral communication. Plans are underway to add a writing laboratory patterned after the one developed at the General College of the University of Minnesota. Oral communication would require special equipment and facilities. While these facilities are not currently available to the college, they are planned for the future.

The program would seek to improve basic skills in an individualized manner using programmed materials and specially trained coordinators who have teaching backgrounds. The college would not need the same amount of assistance in refining this area that would be true of the next two areas to be discussed. As indicated in the section entitled "Assistance Required" the college would bear the major expense with only minor assistance required to provide the service of consultants.

Personal Enrichment

The basic vehicle for the cultural development of the disadvantaged student is a one year program of general education designed to provide the student with a stimulating and successful classroom experience under the guidance of an instructor who has both interest and experience in working with the low achiever and who is willing to devote a majority of his time to this area of instruction.

At the present time the area of formal classroom instruction presents the most formidable barrier to successful implementation of the General Curriculum program. Ideally, the instruction should aim at the "broad fields" pattern of curriculum organization with serious consideration being given to employing core concepts. Five consultants, one an authority on the core curriculum, the other four subject matter specialists, gave serious consideration to this problem at two conferences made possible by the Danforth grant. Their conclusions are reported in detail in Appendix B.

It should be noted that there are at least three critical problems that must be overcome in the successful development of any program of general education for the disadvantaged student. The first of these involves the strong subject matter orientation of the instructors with the resultant inability to perceive the necessity of integration and correlation of material for maximum reinforcement.

A second problem is concerned with the limited availability of materials for use with the developmental student. As can be seen from Appendix E, the modal reading level of students currently enrolled in the Forest Park experimental program is at the sixth and seventh grade level. The choice at present is to use either college oriented materials that are too difficult for the students or to use grade or early secondary school materials which cause resentment on the part of the student. A major objective of this proposal is to develop suitable teaching materials where none now exist.

A related problem is emphasized by the frequent absence of course outlines among colleges currently offering special classes for the disadvantaged. Since the instructors are being "imposed upon" to offer courses of a less than "respectable level" there has been little inclination on the part of guidance workers or administrators to add insult to injury by insisting that the same kind of written detailed planning go into the development of special classes as had taken place in the college parallel and technical curricula. Consequently there is little in writing to guide the new instructor who faces a disadvantaged class for the first time. The theory appears to be that it really does not make much difference what you teach them anyway since there is little hope that they will continue. This very point seems to militate in favor of careful selection of topics since these students have such little time to take with them all that they will ever have in the way of formal education. For this reason, related to the preparation of suitable teaching materials is the task of writing detailed course guides based upon careful evaluation of student needs.

The final problem involves the low status of courses that are non-college parallel. An information program would have to be introduced at the secondary school level to ensure student acceptance of the General Curriculum program. All secondary school personnel would need to believe in and understand the necessity for the college to develop new kinds of educational approaches to cope with the products of the new types of secondary school education. They should not, however, view the General Curriculum as a criticism of the quality of public school education.

There are two essentially dissimilar points of view with respect to the most appropriate type of education for the disadvantaged student. Many of those who consider themselves as progressive would see the attempt to provide general education for this group as a return to the philosophy of Hutchins and Rickover. In truth, there are two most lucid arguments for providing this group with general as opposed to specific vocational education. The first involves the fact that the level of these students with respect to cultural adjustment and basic skills is such as would preclude successful completion of most types of vocational programs without previous intensive remedial efforts. The second reason relates to the student himself, his aspirations and lack of realistic objections. If the student can find a way of bolstering his self-concept and of relating himself to the social structure, he may be more willing to consider a vocational education than he appears to be at the time of his initial contact with the college. Thus, the General Education curriculum is in reality a pre-vocational curriculum.

Dr. Hamlin, Danforth consultant in the humanities, has postulated the following objectives for the general education part of the General Curriculum.

A. The student will be brought to understand that he has the personal responsibility to develop his intelligence and his talents.

B. The student will be brought to understand the necessity for the development of consistent, logical thought and study patterns and that they are fundamental to the learning process.

C. The student will be brought to understand the necessity for effective communication.

D. The student will develop the ability to improve the effectiveness of his own written and spoken language.

E. The student will be brought to understand the cultural advantage derived from a knowledge of the humanities, sciences, social sciences, and mathematics.

F. The student will assimilate basic principles within the inter-related disciplines of the humanities, sciences, social sciences, mathematics through participation in a systematic learning program.

The accomplishment of these objectives would require an integrated program in the areas of mathematics, humanities, social science, and science. The development of such a program is beyond the resources of The Junior College District to accomplish. Consequently, this is an area in which the college will need substantial assistance.

Adjustment to Self and Society

The program of counseling and human relations deals with the core of the purpose for the General Curriculum's existence. The most significant set of objectives postulated for the General Curriculum involved assisting the student to identify his reason for being and to aid him in planning how he might most effectively implement that reason. It is through the counseling program that these objectives may be accomplished.

The detailed proposal for the development of the program in this area can be found in Appendix C, prepared by Danforth consultants, Jordan and Shea. To help place this part of the program in its proper perspective, some of the more salient features of the plan are summarized in the following paragraphs.

The counseling program would be community centered rather than institutionally centered. By this it is implied that counselors would be trained to know intimately all facets of the community so that its total resources would be at the disposal of the disadvantaged student. Workshops would be conducted at which college staff members and representatives of other community agencies could discuss mutual problems in a carefully structured setting.

The counseling staff would work closely with personnel in the public schools to ensure adequate understanding of the program along with the modification of traditional attitudes concerning what was or was not acceptable higher education.

Social workers would be employed as a part of the counseling staff to provide a continuing bridge of understanding between the environment from which the student comes and the programs that are developed for him. A low student-counselor ratio would ensure that students could be seen weekly if necessary. The counselor and the social worker with the assistance initially of consultants would have the responsibility for conveying the student personnel point of view and for teaching human relations skills to other staff members serving in the program. In addition they would assist in coordinating the efforts of other team members through case conferences and collection and presentation of data concerning student characteristics. The counseling-human relations team would also be responsible for developing, testing, and reporting new methods of counseling the disadvantaged student. While a number of books have been written describing the disadvantaged, little has been advanced in the way of special counseling approaches specifically designed to overcome their problems.

The college would need assistance in implementing this part of the program in several areas. First, there would be the need for testing the role of the social worker in the counseling division at the college level. Secondly, there would be a need for consulting assistance to establish the framework and procedures for relating the program closely to the community. If the community is really to serve as a laboratory for the program, provision would need to be made to subsidize students' attendance at cultural activities.

While the fees charged by The Junior College District are modest, it is highly possible that they place college beyond the reach of students from some families, particularly since provisions for extending loans and grants normally exclude students in the high academic risk category. It would be desirable to have sufficient funds to cover books and fees for approximately ten percent of those enrolled in the program. Such funds would be reserved for disadvantaged students from hard core areas recommended by their high school counselors and principals. This approach would be similar to that taken in the College Discovery Program in New York.

Finally, it would be beneficial to retain a consultant from the public school system who would assist in creating mutual understanding, and who could assist in coordinating parts of the program that involved the public schools.

Research and Evaluation

The role of research and evaluation with respect to the General Curriculum is described in detail in Appendix D, prepared by Danforth consultant Kibler. Initially, a research consultant would need to be involved during the planning phase to ensure that behavioral objectives capable of being experimentally evaluated were included as a part of this process. Once the plan of the program had evolved, the research consultant would develop experimental designs and recommend procedures for implementing such designs.

Because it is anticipated that the implications of this project would reach far beyond The Junior College District, it would be essential that an orderly reporting system for making information concerning the program available be established at an early stage. This responsibility would be given to the research consultant and the project coordinator.

Many of the objectives of the program transcend the short period of time in which the student would actually be enrolled in formal classes. There would be a need for a procedure to follow up students leaving the program. One premise of the originators of the program is that it is insufficient to merely assume that a student is better off from having attended a particular program. Rather, it must be demonstrated that he is better off. The program also aims at changing attitudes in the community and mobilizing resources from all levels to find solutions. The success of this venture would in some way have to be described.

Because The Junior College is a teaching institution rather than a research institution, substantial assistance would be required in this area also.

THE OPPORTUNITY

ASSISTANCE REQUIRED

The Junior College District Board of Trustees has already undertaken a heavy financial commitment to the education of the disadvantaged. Specifically, an experimental pilot program has been established consisting of the following major contributions.

A. Ten full time staff members have been employed to work with an initial group of 136 students (estimate was 200). Thus, the ratio of staff to students is approximately 14 to 1. Overall, the institution aims at maintaining a 30 to 1 ratio.

B. Of the ten staff members, two are counselors, one at the Ph. D. level, the other needs only the dissertation. This level of training is substantially beyond the average for Junior College District counselors.

C. A fully equipped Programmed Materials Learning Laboratory has been provided with two qualified coordinators at the master's degree level. A consultant was retained out of District funds to assist in establishing this innovation.

D. The District brought all ten members of the General Curriculum team to the campus two weeks prior to the normal reporting date and paid them additional salary to provide planning time for development of the program.

E. An extensive program of testing (described in Appendix E) has been initiated to provide detailed information on student characteristics and achievement for the main planning effort to begin in the fall of 1966 if this proposal is funded.

Thus, it can be seen that the District has expended major funds to initiate a pilot program for disadvantaged students in the hope that this effort would prove productive and attract the attention of a source of funds that would make it possible to launch a comprehensive program. It should be emphasized that not only would it be impossible for the District to find the resources to expand the existing effort, but it might have considerable difficulty even maintaining the current level of support as the enrollment expands.

The assumption has been made that if answers to some of the more pressing questions can be found, that if materials and course guides can be developed and evaluated, and if procedures for improving counseling and utilizing community resources can be codified; it should be possible to establish a reasonably economical program that would afford a real opportunity for the disadvantaged student. While it must of necessity be more expensive than traditional college parallel education, it would be less expensive than many technical programs and consequently suitable to the majority of community colleges in the nation.

TYPES OF ASSISTANCE REQUIRED

It should be noted that most of the assistance requested consists of consultants who would be expected to work with The Junior College District on a part time basis while retaining their present positions. Experience has demonstrated that it is virtually impossible to get top flight personnel on a full time basis for projects that extend for a limited period of time unless provisions are made for absorbing them into the staff at the conclusion of the project. The talent that is needed for a sudden infusion to develop a viable program for disadvantaged students for the most part would not be interested in permanent careers with a junior college.

In order to maintain continuity with the various consultants used in the program, a rather unique method of payment for their services has been developed. An annual retainer will be payed to each consultant so that certain services would be available to the District while he is still in residence at his parent institution. In most cases this amounts to $1,500 a year. The additional monies would be paid to him for days spent on campus. In this way greater flexibility in our relationship with consultants can be realized to the mutual advantage of both parties.

The permanent personnel recommended would be absorbed into the college at the end of the project provided that their contribution could be defended. The program that resulted from this effort would be disseminated on a national basis. The assumption is made that the program would enroll a total of at least 600 full time equivalent students by 1969.

BUDGET

	1st Year		2nd Year		3rd Year		Total	
	DISTRICT FUNDS	SUPPORT NEEDED	DISTRICT FUNDS	SUPPORT NEEDED	DISTRICT FUNDS	SUPPORT NEEDED	DISTRICT FUNDS	SUPPORT NEEDED
BASIC SKILLS								
A. One coordinator and five tutors for Programmed Materials Learning Laboratory	48,500		48,500		48,500			
B. Programmed Materials	15,000		5,000		2,500			
C. Consultant (1500 retainer plus 15 days at 100 per day) to assist in evaluation and develop materials and procedures		3,000		3,000		3,000		
D. Consultant Expenses @ 20.00 per day		300		300		300		
TOTAL BASIC SKILLS							168,000	9,900
PERSONAL ENRICHMENT								
A. 10 Instructors full time - 8 Instructors 3/5 time	115,500		115,500		115,500			
B. Publications & Instructional Materials	2,500		1,500		1,000			

	1st Year		2nd Year		3rd Year		Total	
	DISTRICT FUNDS	SUPPORT NEEDED	DISTRICT FUNDS	SUPPORT NEEDED	DISTRICT FUNDS	SUPPORT NEEDED	DISTRICT FUNDS	SUPPORT NEEDED
C. Instructional Resources Specialist and Instructional Resources Technician		19,000	8,000	12,000	15,000	6,000		
D. Curriculum Consultants - 4 teams consisting of team leader (1500 retainer plus 15 days @100 per day) and 2 assistants (500 retainer plus 10 days @100 per day) in the areas of math, science, humanities and social science.		24,000		24,000		24,000		
E. Core Curriculum Consultant (1500 retainer plus 15 days @100 per day) to work closely with the Junior College staff to develop the general education courses, to originate and to test curriculum methods and materials.		3,000		3,000		3,000		
F. 8 Instructors 2/5 time - release time for Junior College Instructors to work with consultant teams in curriculum development		25,000		25,000		25,000		
G. Consultant expenses @20.00 per day		3,100		3,100		3,100		
TOTAL PERSONAL ENRICHMENT							374,500	202,300

	1st Year		2nd Year		3rd Year		Total	
	DISTRICT FUNDS	SUPPORT NEEDED	DISTRICT FUNDS	SUPPORT NEEDED	DISTRICT FUNDS	SUPPORT NEEDED	DISTRICT FUNDS	SUPPORT NEEDED
ADJUSTMENT TO SELF AND SOCIETY								
A. 4 Counselors full time - 2 counselors 3/5 time	40,600		40,600		40,600			
B. Consultant in Counseling (1500 retainer plus 100 per day for 15 days) to work with counselors in workshop situations to improve techniques for counseling disadvantaged students. To assist in conducting workshops for the upgrading of the staff.		3,000		3,000		3,000		
C. Consultant on Community Junior College Interaction (1500 retainer plus 100 per day for 15 days) to provide leadership in utilizing all resources within the community as a laboratory for the program.		3,000		3,000		3,000		
D. Consultant in Human Relations (1500 retainer plus 100 per day for 15 days) to provide leadership in matters involving understanding and working with the deprived communities.		3,000		3,000		3,000		

	1st Year		2nd Year		3rd Year		Total	
	DISTRICT FUNDS	SUPPORT NEEDED	DISTRICT FUNDS	SUPPORT NEEDED	DISTRICT FUNDS	SUPPORT NEEDED	DISTRICT FUNDS	SUPPORT NEEDED
E. Social Worker-Full time person to be absorbed by Junior College District staff if contribution can be proven - to work with staff members to provide detailed information concerning home environment and to interpret program to the deprived community.		9,500		9,900		10,300		
F. Consultant - Secondary School (1500 retainer plus 15 days @ 100 per day)- to provide guidance in terms of relating the program to the secondary schools and to interpret program to the public schools - this person would be a full time person in the public schools, preferably at the assistant superintendent level.		3,000		3,000		3,000		
G. Student attendance at cultural events- to permit the college to underwrite travel or admission expenses for students to cultural events within the community. (The college will of course sponsor additional cultural events to which all students are invited).		5,000		6,500		7,500		

	1st Year		2nd Year		3rd Year		Total	
	DISTRICT FUNDS	SUPPORT NEEDED	DISTRICT FUNDS	SUPPORT NEEDED	DISTRICT FUNDS	SUPPORT NEEDED	DISTRICT FUNDS	SUPPORT NEEDED
H. Remission of Student Maintenance Funds - Provision for Books. (50 students @300 per year) to be awarded to students recommended by guidance counselors in high schools as representative of students having promise but incapable of paying their own way. College would provide work for students so they could help buy clothes and bus fare.		15,000		15,000		15,000		
I. Consultant expense @20.00 per day		1,200		1,200		1,200		
TOTAL ADJUSTMENT TO SELF AND SOCIETY							121,800	133,300
INFORMATION AND TRAINING								
A. Internships - 3 per semester - to provide a semester experience in working with the disadvantaged at the college level to be limited to one semester for those either already counseling or teaching in a junior college or planning to counsel or teach in a junior college - arrangements to be made with local university for granting graduate credit. (1400 basic stipend plus 200 per dependent)		12,000		12,000		12,000		

	1st Year		2nd Year		3rd Year		Total	
	DISTRICT FUNDS	SUPPORT NEEDED	DISTRICT FUNDS	SUPPORT NEEDED	DISTRICT FUNDS	SUPPORT NEEDED	DISTRICT FUNDS	SUPPORT NEEDED
B. Workshops - to be conducted both for in-service personnel and on a national basis for those interested in learning the techniques of the program - in the area of counseling and instruction.		30,000		30,000		30,000		
C. Reporting				2,500		2,500		
D. Travel		5,000		5,000		5,000		
TOTAL INFORMATION AND TRAINING								146,000
RESEARCH AND EVALUATION								
A. Research Consultant Team consisting of team leader (1500 retainer plus 15 days @100 per day) and three assistants (500 retainer plus 10 days @100 per day) backgrounds to be complementary in areas of research design, tests and measurements, statistical and computer technology, learning and instructional technologist.		7,500		7,500		7,500		

	1st Year		2nd Year		3rd Year		Total	
	DISTRICT FUNDS	SUPPORT NEEDED	DISTRICT FUNDS	SUPPORT NEEDED	DISTRICT FUNDS	SUPPORT NEEDED	DISTRICT FUNDS	SUPPORT NEEDED
B. Follow up study for three years - of students leaving program. Two interviews per year (student & instructor, employer). Sample of 100 students per year for three years (2nd, 3rd, 4th year after starting project) 4th year expense to be borne by Junior College District.				2,400		2,400		
C. Consultant expense		900		900		900		
TOTAL RESEARCH AND EVALUATION								30,000
ADMINISTRATION AND ORGANIZATION								
A. Associate Dean - to be responsible for Project Development, to be gradually absorbed into staff at Associate Dean level.		14,000	5,000	9,500	10,000	5,000		
B. Office equipment, publication expense, data processing, library and miscellaneous expenses.	6,000		2,500		2,500			
C. Clerical assistant - (3 @4800 per year) to serve as secretary to project coordinator, serve as secretary to counseling staff in relations with community, type course (cont'd on next page)								

	1st Year		2nd Year		3rd Year		Total	
	DISTRICT FUNDS	SUPPORT NEEDED	DISTRICT FUNDS	SUPPORT NEEDED	DISTRICT FUNDS	SUPPORT NEEDED	DISTRICT FUNDS	SUPPORT NEEDED
C. Clerical assistant (cont'd) - materials developed, handle correspondence and coordination with consultants, assist in clerical work involved in setting up national meetings and reporting results, serve consultants and released time instructors.		14,400		14,400		14,400		
D. Fringe Benefits (Consultants get no fringe benefits and are not included)	24,600	11,300	26,100	9,900	27,600	8,700		
E. Indirect Costs	50,500	43,000	50,500	41,200	52,700	39,700		
TOTAL ADMINISTRATION AND ORGANIZATION							258,000	225,500
TOTAL ANNUAL COST	303,200	258,200	303,200	250,300	315,900	238,500		
DISTRICT FUNDS							922,300	
SUPPORT NEEDED								747,000
TOTAL PROJECT COST							1,669,300	

SUMMARY OF PROJECT BUDGET

District Funds	1st Year	2nd Year	3rd Year	Total
Basic Skills	63,500	53,500	51,000	168,000
Personal Enrichment	118 ,000	125,000	131,500	374,500
Adjustment to Self & Society	40,600	40,600	40,600	121, 800
Information & Training	-------	------	-------	-------
Research & Evaluation	-------	------	-------	-------
Administration & Organization	81,100	84,100	92,800	258,000
Total	303,200	303,200	315,900	922,300
Assistance Requested				
Basic Skills	3,300	3,300	3,300	9,900
Personal Enrichment	74,100	67,100	61,100	202,300
Adjustment to Self & Society	42,700	44,600	46,000	133,300
Information & Training	47,000	49,500	49,500	146,000
Research & Evaluation	8, 400	10,800	10,800	30,000
Administration & Organization	82,700	75,000	67,800	225,500
Total	258,200	250,300	238,500	747,000

THE GENERAL CURRICULUM

A Proposal for the Development of a Program for the Educationally Disadvantaged

APPENDIX

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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UNIVERSITY OF CALIF.
LOS ANGELES

APR 21 1967

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INFORMATION

THE JUNIOR COLLEGE DISTRICT OF
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THE JUNIOR COLLEGE DISTRICT
ST. LOUIS - ST. LOUIS COUNTY, MISSOURI

Forest Park Community College

THE GENERAL CURRICULUM

A Proposal
for the Development of a Program for the
Educationally Disadvantaged

Vol. 2

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APPENDIX A

A REVIEW OF LITERATURE PERTAINING TO THE GENERAL CURRICULUM

Duane D. Anderson
Danforth Consultant on Literature Curriculum
University of Michigan

Appendix A

CHARACTERISTICS OF DISADVANTAGED COLLEGE STUDENTS

The first section of this report will attempt to survey and to summarize the research which has been undertaken regarding the characteristics of the type of student who will most likely enroll in the General Education Program.

Only about one-third of the one hundred forty-nine public and private junior colleges reporting in the Schenz Survey, indicated that they had completed studies of the success or failure of students with low ability at their institutions. Another 24% indicated that they either had done a study and the report was not available, or the study was in progress. The data reported in this section has been gathered from a variety of studies and is intended to provide some basis from which the consultant can operate, as he prepares curriculum materials and suggests methods of instruction.

The research which has been conducted to identify the characteristics of students, for whom the General Education Curriculum is being developed, is presented under many headings.

The student with whom we are dealing, is first of all a high school graduate. This, for all practical purposes, means that he has persisted in our educational system for the required twelve years. From data collected at the Wilson Branch of the Chicago City Junior College, it was found that although the students in the program scored below the 10 percentile on a standardized test battery, 38 percent of them came from the top half of their high school class. This same group of students had an average reading score of 8.9 grade level, with a range from the 4th grade to the 12th grade.

Data collected at Bakersfield, California, on the characteristics of their Program 0, students tell about the same story. On the Standford Achievement Tests in spelling, the students scored at the 5.9 grade level; in reading comprehension, at the 6.0 grade level; and in vocabulary, at the 7.6 grade level. The California Test of Mental Maturity scores, indicate a language I.Q. of 82.0, a non-language I.Q. of 89.7, and a total I.Q. of 85.7. In a capsule, it can be said that these students have an exceedingly limited vocabulary; their writing contains many gross errors in spelling and grammar; they have difficulty with simple fundamental mathematical concepts in addition, subtraction, multiplication, and division; they have a very meager knowledge of government, and their lack of reading skills, is enormous.

The counseling Center Research Study from Los Angeles City College, provides one set of data on the low-ability student's aptitude, achievement, and motivation from a battery of standardized tests administered to a group of 64 students, (40 female and 24 male), the majority of whom were Negro. The group was selected randomly from students under 22 years of age and not foreign speaking, who scored in the lowest decile on SCAT based on National College Freshmen norms.

Caution should be exercised in the use of these test data because the group includes a preponderance of Negro students, although the program at The Junior College District is also likely to have a high percentage of Negroes.

As stated in "Guidelines for Testing Minority Group Children",(Journal of Social Issues, Vol. XX, No.2, April 1964, p. 130):
"Standardized tests currently in use present three principal difficulties when they are used with disadvantaged minority groups:

1. They may not provide reliable differentiation in the range of the minority groups scores;

2. Their predictive validity for minority groups may be quite different from that for the standardization and validation groups;

3. The validity of their interpretation is strongly dependent upon adequate understanding of the social and cultural background of the group in question."

The following is a summary of the findings:

I. Aptitudes:

A. Intelligence Quotients

Examination of high school records of 27 of the experimental group indicates a median I.Q. of 87, while in high school. Test administered in class, noticeably the SRA Non-Verbal Test, shows an average I.Q. of 102, (20 points higher than the Verbal). The comparison group was not checked for high school I.Q.'s, but the SRA Verbal I.Q. was 107, while the Non-Verbal was 114.

B. Academic Aptitude

The median verbal and quantitative scores of the experimental group falls in the lowest 10-15 percent of college (SCAT), and general population (SRA) norm groups, with both scales equally low.

C. Non-Verbal Aptitude

The average experimental group student compares favorably with average "17 years of age or older" on one non-verbal measure (SRA) of mental ability. However, on a test of non-verbal abstract and systematic reasoning (timed administration of Raven Progressive Matrices), the group average compares with the lowest 15 percent of Los Angeles City School high school seniors.

D. Untimed Measures of mental ability described thus far, were timed. The experimental group was permitted to complete the SRA Verbal and Non-Verbal Tests on a power basis after the time limit was called. The distribution of experimental group scores (Language, Quantitative and Non-Verbal) on an untime (power) basis is similar to the distribution of comparison group scores on a timed basis.

2. Achievement:

A. Phonics Survey

Eighty percent of the experimental group have a "severe or crippling handicap" in the ability to identify spoken sounds in written form. Records for the comparison group are not available, but a group of students in a reading improvement class had only 30 percent so handicapped.

B. Grammar Usage

In grammar usage, the average experimental group student placed among the lowest 15 percent of beginning college freshmen.

C. Vocabulary

The average experimental group student places in the lowest 5 percent of all college students (grade 9.2) in reading vocabulary (mathematics, science, social science, general vocabulary). In associating spoken words with pictures, he ranks at the 30th percentile on general population norms.

D. Reading Comprehension

The average experimental group student ranks in the lowest 1 percent (grade 8.8) of college freshmen in timed reading comprehension (following directions, reference skills, and interpretating material). In a power of critical reading (grasping main idea or intent of the author and finding logical conclusions), he ranks in the lowest 5 percent (grade 8.3) of Psychology I students at Los Angeles City College.

E. Listening Comprehension

The average experimental group student ranks in the lowest 10-15 percent of a Los Angeles City College Psychology I norm group in his abilities in immediate recall of oral material, following oral directions, recognizing transitions, recognizing word meanings in contect, and lecture comprehension.

3. Needs:

A. Compared to national norms indicated in the manual, the experimental group as a whole, shows the following needs: An above average tendency to follow others and do what is expected, to have things in order and well arranged, to accept blame when things don't go right and feel inferior to others in most respects; to keep at a task until finished; to do new and different things; a below average tendency to be regarded as a leader or stand up for one's point of view, and to show interest in the opposite sex. The males in the experimental group, in addition to the above have a below average tendency to do their best or be successful. The females of the experimental group, in addition to the characteristics of the group as a whole, have an above average tendency to blame, get angry, and criticize others when things go wrong, and attack another's viewpoint.

B. In relation to the comparison group, experimental males appear to have a greater tendency to have things in order, to keep at a task until finished, and to follow orders and do what is expected. On the other hand, they have less tendency than comparison group males to want others to provide help and sympathy, and to show interest in the opposite sex. The experimental group females appear to differ from the comparison group females only in having a greater tendency to have things orderly and in showing less interest in the opposite sex.

4. Values:

A. In relation to the National College norms, the experimental group as a whole has above average concern with humanitarian social values and below average concern for economic, practical, material values. A male-female difference shows in that males place more emphasis on religious and aesthetic values and less on knowledge as a value, while the females show more emphasis on knowledge and power values and less on aesthetic values.

5. Interests:

A. The experimental group males and females, relative to national male and female norms, show above average interests in social service and clerical activities, and below average interests in outdoor and mechanical activities. In addition to the above general characteristics, the experimental males show above average interest in artistic-literary, and musical activities, whereas the experimental females show above average interest in computational, and below average interest in science and musical activities.

B. Relative to the comparison group, the experimental males are more interested in social science, clerical, and scientific activities, and less interested in outdoor and persuasive activities.

6. Study Habits and Attitudes:

A. The average score for the experimental group places it in the lower third of the national male college norm group, while the average score for the experimental group females compares favorably with the national female college norm group.

B. The experimental group students indicate the following problems not generally found in successful students:

1. Not setting goals for each study period;
2. Don't feel grades are reflection of ability level;
3. Prestige of college is the main motive for attending college;
4. Don't arrange or organize material in logical order when studying for examination;
5. Have trouble with mechanics of English;
6. Don't utilize vacant hours to study to relieve evening hours.

7. Difficulty in Expressing Self in Writing:

The student who is many times labeled as a "slow learner" or "culturally deprived" has other characteristics which are more difficult to quantify, but highly relevant as we design educational programs for him.

Socially, the problem of educating slow learners, is largely that of educating students from lower class neighborhoods or students of the less successful families in middle-class communities. Families without bathtubs and books produce most of the students identified as slow learners.

Studies, which have been made of slow learners, have led to the conclusion that most slow learners come from families in which the earning capacity of the adults is low, housing is inadequate, diet deficient, health problems are neglected, and income is often spent on immediate pleasures.

Children of such families usually suffer from neglect and shallow contacts, if not open rejection. As children, they have little experience with reading or travel, and few contacts with adults who are intellectually stimulating. As soon as they are able to take care of their basic physical needs during the day, lower-class children are usually turned loose to seek answers to their questions and problems among their equally inexperienced peers, while middle-class parents are taking a much more active role in the education of their children. Partly as a result of this type of environmental difference, middle-class children, on the average, have somewhat higher I.Q.'s in early grade school and their superiority on I. Q. tests increases through time.

Perhaps the greatest danger the slow learners face in school, is that they will accept the prevailing judgment of their worth. Lewis Dexter points out that in our society, being mentally slow creates a serious personality problem because we make demonstration of formal skills in reading, writing, and arithmetic a requirement for achieving social status, even though such formal skills are not necessarily related to the capacity for effective survival or contributing to the economic life of the community. The high social value which we place upon knowing when Wilson was president, where the Alps are located, and how to solve a quadratic equation, leads the slow learner, who is often of low social status, to acquire a negative or hostile self-image, and therefore to live according to a self-definition of himself as worthless or contemptible.

This negative self concept, so typical of slow learners has far reaching consequences. Some slow learners aggressively attempt to deny society's negative evaluation of them and strike out at others in a hostile manner.

They often become delinquent and have poor work attitudes. Others passively accept the school's and society's definition of them as inadequate. At worst, such individuals may remain dependent wards of society; at best, they withdraw from participation in school and civic affairs, and content themselves with voting "no" on bond issues for higher teachers' salaries.

Many psychological characteristics of the educationally and culturally deprived student have been identified as basic needs, for which reinforcements in his environment have been lacking. They include: an acceptable self-image; knowledge of essentials, such as nutrition and health; an implicit sense of identification with a stable family in a stable neighborhood; security and freedom from want, both material and emotional; the self-confidence and motivation to achieve which rub off on the student who is surrounded by things and involved in experiences which are accepted both at home and in school as symbols of success and as significant achievements. In many of the students in our low ability programs the positive aspects of these characteristics are insufficient or lacking, and no compensation has been made for them. As a result of these deficiencies, the student's ability to learn is impeded or lost.

To cite the results of the many researches which have been conducted to establish the high correlation between poor achievement in regular college courses and low measured scholastic ability is redundant since, in effect, we are assessing the same traits in both test and criteria.

We know by virtue of the selection criteria, i.e., aptitude tests, that these students are almost certain to be poor performers in the typical, verbal college courses.

Our goal is to identify other characteristics of these "low ability students" that can be used to help them succeed and to help the consultant develop a curriculum which will enhance his chances of success. It is hoped that a psychologist-consultant will be able to offer relevant data which will give other consultants a clearer picture of the students for whom they are constructing this curriculum.

For our purposes there are two weaknesses with the literature dealing with this topic. One is that most of the research which has been conducted on the low ability student, has been on a lower age group than the one we are concerned with, because until only recently the "low ability" student at age 18-19 was not likely to have been a student. The second weakness in the research data, is that the concept of the "dropout" has been involved in the research and this implies a difference in motivation which is not necessarily true for people in this type of program.

Frank Riessman in "The Culturally Deprived Child", lists some characteristics that are typical of the deprived child's style and which may be worth considering in relation to our group of "low ability" students. He indicates that they are:

1. Physical and visual, rather than aural.
2. Content-centered rather than form centered.
3. Externally oriented rather than introspective.
4. Problem-centered rather than abstract-centered.
5. Inductive rather than deductive.
6. Spatial rather than temporal.
7. Slow, careful, patient, persevering rather than quick, clever, facile, flexible.

Two final studies, which relate to the disadvantaged college youth, merit our attention. In the first, Otis D. Froe at Morgan State College in Baltimore, Maryland, studied both the Negro graduate student and the entering Negro freshmen at that institution. He reports that "there is evidence to indicate that many of the learning behaviors needed by the disadvantaged learner can be acquired."

In several of the special classes offered at the Morgan State College, it was found that "with special treatment, students accomplished in a relatively short period of time, great achievement based on standardized examinations." Dr. Froe also indicated that the non-intellective type of behavior was just as crucial, and much less researched, than the intellective type behavior in the learning process. In another study Dr. Froe used the C. P. I. and the Inventory of Beliefs to obtain data on the disadvantaged freshmen students in his institution. He found that these students scored low in the following traits: Dominance, capacity for status, social presence, self-acceptance, sense of well-being, responsibility, tolerance, achievement via independence, intellectual efficiency, psychological mindfulness and flexibility.

A second study by S. O. Roberts at Fisk University, Nashville, Tennessee, related test performance to ethnic group and social class. In comparing the test scores of a large group of freshmen from twenty-two universities, he reports the following data on the group of Negro students whom he classified as disadvantaged.

TEST	MEDIAN SCORE OF GROUP
SCAT -T	18%ile
SCAT-Q	15%ile
SCAT-V	18%ile
ACE -T	6%ile
ACE -Q	8%ile
ACE -V	8%ile
Coop. Eng.	12%ile
Step Reading	18%ile
Step Science	21%ile
Step Social Studies	21%ile
Step Mathematics	25%ile

On the basis of his study of educational planning for disadvantaged college youth, Dr. Froe presents the following guidelines which are relevant to this type of program:

1. Initially, planning for the disadvantaged college student must provide for ongoing research to test the many tentative hypotheses underlying learning experiences and programs now being provided. One way of incorporating this research is to plan for a careful evaluation of the outcomes of present programs.

2. To cope with the lack of "academic skills" found among disadvantaged learners there is needed, perhaps a greater "structuring" of learning experiences to be consistently provided over longer periods of time.

3. The learning experiences provided for the disadvantaged student must extend beyond the typical school day, and must reach beyond the confines of the college campus and involve the larger social environment. This involvement of the larger society refers not only to a greater utilization of all its pertinent resources , but also to the need for the college to become involved in changing aspects of the environment which are not conducive to the attainment of desired educational goals.

4. Planning must provide appropriate "models" for students in order to facilitate the acculturation process. These models will involve both persons and activities from the college resources as well as those from the larger social environment.

5. In utilizing the faculty as "models", programs must provide for high level informal relationships between faculty and students outside the classroom, as well as the more formal relationships.

6. Administrative units in the college must be small enough so as to provide for more frequent contacts with students, and for contacts over a longer period of time.

7. Programs must provide for a more individual "pacing" and structuring of learning experiences to take into account the wide disparity in preparation and abilities of these students. This individualizing of learning experiences will involve such techniques and media as smaller classes, independent study procedures, programmed instruction, closed circuit television, recorded lectures, and the like.

8. Programs must incorporate the kinds of experiences which give promise of changing "self-concepts" of many of these disadvantaged learners. These learners must develop a feeling of confidence in their ability to cope with the academic culture. Two "ingredients" to be included in these experiences are opportunities for some type of initial success and atmosphere free from ridicule. These learning experiences must be challenging but not "threatening."

9. Special experiences must be provided either through pre-service or in-service training, for teachers of the disadvantaged student in order that a more functional understanding of the principles of human growth and development might result. Teachers need to understand the principles of motivation and "need" as pertains both to their students and to themselves. Many conflicts in the value systems of the teacher and the disadvantaged student tend to occur and to impede learning because of a lack of understanding of human motivations. These experiences must be in addition to the usual formal courses in the behavioral sciences, and must involve experiences containing therapeutic qualities - something approaching the group therapy type experience.

10. Counseling and guidance facilities must become more than remedial and corrective agencies in the college environment. These agencies must take a greater role in planning the kind of developmental experiences needed by their students. This role must be in addition to the corrective role.

11. Programs must make direct plans for the development of such specific skills as reading, writing, talking, and listening. This implies a specific attack on the problem through such facilities as speech and reading clinics, as well as through the involvement of all other available media on the college campus and in the larger social environment, including discussions, drama reporting assembly.

12. Planning must provide for an upgrading of evaluation practices used by the teacher in the classroom. It has been fairly well established that the procedures used by the teacher in evaluating the student tend to influence the kind of learning that takes place. Classroom quizzes and examinations, that merely measure the amount of knowledge the student has acquired and can "recall" are not likely to encourage learning on a much higher level that requires the development of skills needed to "apply" and "use" knowledge. It is the lack of these kinds of skills which are reflected in poor standardized test performances.

It has tentatively been decided that the "remedial instruction approach" has proven itself to be an ineffective method of meeting these student's needs, and that a new approach is needed.

The most recent, comprehensive survey of courses and curriculums for students with low ability, and the views of administration, regarding what course of action should be taken, was done by Dr. Robert F. Schenz, as his doctoral study at the University of California, and reported in the May, 1964, Junior College Journal.

He listed his findings as follows:

1. The high percentage of responses to the inquiry form, from college administrators, and in particular the responses to the question "what should be done," indicates the high interest and concern college administrators have for this problem.

2. Junior Colleges follow varying practices in identifying and in admitting students with low ability and offer recommendations supporting varying practices in the admission of such students to their colleges.

3. Tests; tests and grades; tests, grades, and interview are used by 95 percent of the colleges responding in the identification of students with low ability.

4. A vast majority (91 percent) of the colleges responding indicated that the door was "wide open" for all high school graduates and "open" for all those eighteen years of age and over, who could profit from the instruction.

5. Of the vast majority of junior colleges admitting students with low ability, only 40 percent noted the potential of such students by admitting them as probationary students.

6. More junior colleges are observing that a larger and larger proportion of their full-time student body are students with low ability.

7. The recommendations of administrators of public institutions appear to be consistent with public policy–educational opportunity for all.

8. The recommendations of administrators of private junior colleges generally support a policy of selective admissions.

9. It is clear that junior colleges not only follow varying curriculum practices, but also offer recommendations supporting varying practices in the provision of special courses and curriculum for students with low ability.

10. Even though 91 percent of the junior colleges admit such students, only twenty percent have designed special courses and curriculum for them.

II. Colleges are attempting to meet the needs of students with low ability by making available remedial courses which are provided for all students.

For our purpose, the finding that 55 percent of the one hundred eleven public junior colleges reporting, indicated that they either require or recommend remedial courses for students of low ability, while only 12% require, and 9% recommend, a special program of courses for these students, is most revealing when administrators were asked, however, what they would recommend regarding curriculum practices for students of low ability, 46% indicated that they would recommend special courses and curriculums.

The second section of this report, is a brief summary of a few of the programs for low ability students which are now in existence in junior colleges around the country. An attempt will be made to identify the objectives of the programs, the selection criteria, the content of the curriculums, and the methods of organizing the programs. Where studies have been undertaken to determine the effectiveness of the program, the results will be included.

The data presented in this report, is an attempt to give some general direction to the program, and to the efforts of the consultants.

PROGRAMS FOR THE LOW ABILITY STUDENT

The programs for the "low ability students" found in junior colleges today, have a variety of objectives, some stated and others implied.

One objective, either stated or implied in nearly all of the programs, is that of providing instruction in basic skills.

In the Bronx Community College (New York), "Discovery Program", this objective is implemented by providing a reading improvement course and a remedial mathematics course.

The Dade County Junior College (Florida), provides in its "Guided Studies Program", a basic reading, basic writing, basic mathematics, and basic educational planning course, for all students below the 9-8%ile band on SCAT.

The Bakersfield College (California), "Program O", requires students scoring below the 10%ile on SCAT and the English classification test to enroll in remedial courses in social science, mathematics, and English.

In the Chicago City Junior College, Wilson Branch (Illinois), the emphasis of the "Basic Curriculum", is placed on language and reading skills. A three hour rhetoric course and a two hour remedial reading course, are required each semester.

These examples give some idea of the current practice in this area, however, two statements, one from Chicago, and the other from Los Angeles, indicate a possible change in philosophy away from the emphasis on remedial basic skills courses.

"The faculty committee on the basic program, after four years of experience, has concluded that the objectives of the basic program should be shifted away from a remedial approach in preparation for the regular college work, to a terminal orientation with the development of skills and techniques, which will lead directly to employment."

"Perhaps learning skills and behaviors are too much emphasized in the beginning of the program at the expense of developing motivations and goals. That is, perhaps we should begin by using counseling procedures to increase the probability of freeing motivations and allowing for, and aiding in "self-discovery."

A second aspect of the existing programs which is also often stated as one of the objectives, relates to the use to which the acquired skills, knowledge, and attitudes are to be put. This is a philosophic question of some importance to those responsible for developing the course syllabus. There seem to be three possible categories in which to place the programs designed for "low ability students".

The first, is the vocational-occupational use, where the content of the course and the methods by which they are presented resemble a training program similar to the Federal MDTA Program. The Chicago Basic Curriculum may be moving in this direction, if the faculty committee recommendations are acted upon.

"The students at the 10%ile have no predictable chance for success in college level courses. Nevertheless, after a trimester or two in the basic program, about one-third of the students qualify for placement in a regular college program." The third use, to which the results of the instruction in the programs for low ability students can be put, may be called social and personal enrichment. Many students enrolled in these classes have missed the educational and cultural experiences which are a necessary part of every citizen, in our society today.

Personality wise, they have missed the feeling of success and security so vital to their full development, primarily because they have been forced to compete in a contest in which they have had no chance of being successful. Their self-concept has been distorted by unfair comparisons, and their feelings of inferiority have been reinforced by the "system", from their first introduction to it.

COURSES IN THE SPECIAL CURRICULUMS

Another aspect of the program of vital concern is that of course offerings in the various curricula designed for the low ability student. Again, a few examples from the programs examined will illustrate the type of course offerings.

The Flint Community College (Michigan), "Curriculum A" includes:

> A basic English 010; Social Science 091; and a basic math 091. The student is allowed one elective andis required to enroll in a group guidance class.
>
> Bakersfield's "Program 0 Curriculum", includes:
>
> Social Science 080; Mathematics 080; and English 080.

Dade County Junior College's "Guided Studies Curriculum", includes:

GSR 61 - Basic reading: A course designed to teach students basic reading skills so that they may proceed, without difficulty through a regular college program. Machines and other devices and techniques will be used in the course. Primary emphasis will be placed on the improvement of comprehension of textbook materials, skills in grasping main ideas and vocabulary building.

GSW 61 - Basic writing: A course designed to help students improve their writing skills. Emphasized in the course will be practical writing experience which the student can use in his social, business, and academic life.

GSM 61 - Basic Mathematics: A course in the skills and concepts of mathematics for students needing to strengthen their mathematical background.

GSP 61 - Basic Educational Planning: This phase of the Guided Studies Program has, as its primary objective, assisting participating students with the process of "self" assessment including aptitudes, interests, achievements, experiences, personality, and study habits. It thus provides a sound basis for meaningful personal direction and realistic educational planning.

All students taking the basic courses, except those on suspension, may register for one course in a degree program.

Wilson's "Basic Curriculum", includes:

A three hour rhetoric course and a two hour remedial reading course are required each semester of the year's program. In addition, a year's sequence in social science and natural science are also required. Also the student may elect one course from a group of non-academic courses, such as speech, music, art, typing, and remedial mathematics. The emphasis in science and social science is on vocabulary, paragraph analysis, sentence structure, and study techniques, and not on subject content.

The Los Angeles City College Curriculum, includes:

Two non-credit courses, English 2I, and Psychology 30. The areas of study in the English course indluded grammar exercises based on English 2600; exercises leading to the writing of themes; themes on fourteen types of topics; and supplemental reading of novels, short stories, and poetry. The areas of study in the Psychology 30 class, consisted of orientation. Understanding personality; and personality of work. The textbook used, was, Sorenson and Malm. "Psychology for Living", McGraw Hill, 1957.

The Bronx, "College Discovery Program", requires each of the special matriculants who will subsequently enroll in the college's regular liberal arts curriculum, to take two courses in the summer session, before they enroll. These courses consisted of Reading Improvement GEO 2; Elementary Mathematics SMOL; Intermediate Mathematics SMO 2; Survey of Mathematics SML I; English Composition GE I; and Intermediate Spanish GSP 03.

INSTRUCTIONAL MATERIALS AND METHODS

The area of instructional materials and methods utilized by programs for the low ability student, is so broad that little will be gained by attempting to summarize the findings from the various programs. The materials and methods in general were related to the purposes for which the programs were developed, with a wide variety of remedial texts and supplemented materials used in programs attempting to bring students up to college level while the use of work experience program and vocational counseling was found in the occupational oriented curriculums.

SELECTION CRITERIA

The final area relating to the existing programs for the low ability student at the junior colleges, involves the selection criteria used.

Of the one hundred sixty-nine colleges who reported their means of identifying students with low ability, on a 1962 inquiry form in the National study conducted by Robert F. Schenz, the following data was compiled:

A. Tests are used in identifying students with low ability, in 95% of the colleges.

B. Ordinarily, test scores are combined with other methods of identification, with high school grades by 38% of the colleges and with interviews and high school grades by 26%

C. Less than one-fifth of the institution's report relying only on the result of tests. 3% use only grades and 2% use only grades plus interviews.

D. The only other practices reported were the use of recommendations from high schools and the results of high school personality ratings.

E. Of the one hundred sixty-one colleges reporting that they use tests in identifying the low ability student 34% used SCAT; 21% used ACT; 18% used ACE; 9% used SAT; 4% used CQT.

The actual criteria used to select students for the special curriculums for low ability students varies only slightly as the following program requirements indicate:

Basic Curriculum (Wilson): "The lowest tenth on a battery of intelligence, English, and reading tests."

Guided Studies Program (Dade County): "Scores falling below 150 on the Florida State wide Twelfth grade testing program or below 9-18%ile band on SCAT."

Program 0 (Bakersfield): "Below the tenth percentile (National 13th grade norms) on SCAT and the English Classification Test."

Curriculum A Program (Flint): "Not meeting the minimum requirements for the curriculum of their choice. (cut off scores vary)."

Experimental Program for "Low-Ability" students (Los Angeles City College): "SCAT-T raw score of 39 or below (11th National college freshman percentile), no previous college background, below 22 years of age, and not educated primarily in a non-English speaking country.

PROGRAM EVALUATION

As a summary, the following excerpts from evaluations which have been made of the existing program are presented:

Evaluation of Program 0 (Bakersfield):

1. A significant improvement in standards has been reported by instructors of regular college classes which formerly were hampered by the presence of Program 0 Level students.
2. Program 0 instructors report that their students are conscientious and motivated. They feel that many of them are working at maximum effort.
3. The tenth percentile seems to be a reasonable cut-off point.
4. Attention and general attitudes in Program 0 classes are felt to be as good as in most classes.
5. Ability is only one of the critical criteria of success with this group, however, an I.Q. of 90 or above seems, in general, to be correlated with academic success.
6. It is felt that the general fund of knowledge and skills of these students have been increased. Deficiencies have been repaired and some students have been salvaged.
7. The program is highly dependent on sensitive and competent counseling and instruction. To select and place on the basis of test scores without intensive counseling and dedicated teaching would be grossly unfair to the students involved.

8. The program definitely has promise. Refinements will be in order after further study.

EVALUATION OF THE BASIC CURRICULUM (Chicago):

So far as the faculty is concerned there is general support for the program, even though at first there was not. The faculty now realizes what the basic curriculum has done to upgrade the quality of work in the regular classes since the lowest one-third of the students have been syphoned off into the basic program.

Over the period of five semesters for which records are now available, only 17 percent of the students who were admitted to the regular program survived four semesters of college work. This means that of all the students who were tested and placed in the basic program, only 44 percent completed four semesters of college work.

In conclusion, it is not easy to measure the value of the Basic Curriculum for its students. It is certain that 80% of the Basic students had an opportunity for one year in the Basic Program when it is almost certain that they would have been dropped at the end of one semester in the regular program. If four to five percent are salvaged even as minimum level students, then there is at least that small profit to the credit of the Basic Curriculum.

APPENDIX B

A PROPOSED PROGRAM FOR UTILIZING CORE CONCEPTS IN THE DEVELOPMENT OF THE GENERAL CURRICULUM

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Appendix B (I)

INTRODUCTION

As we approach this critical problem of the disadvantaged junior college-age student, it is essential that we examine carefully our educational program and what our responsibilities are for these students. Are we concerned mainly with the preparation of youth for college, or ,basically, is it our first responsibility to give every youth full opportunity to reach his potential so that he may live as fully as possible and become a useful contributing citizen?

Sometimes, the reflectively minded are inclined to suspect that many so-called educators have fallen victim to the older European concern for the brilliant, the elite, and only incidentally with those of low academic interest or ability. As a recent speaker observed: "We do not have an educational system, we have a scholastic system." Certainly the post-Sputnik period has given every indication that the primary concern of many has been for the student of demonstrated superior ability.

The wide-spread extolling of such nebulous terms as "quality", "standards", and "hard subjects" has led to the rigorous development of the curriculum without regard to the student's interests, understanding, or needs, and even calculated to remove curriculum areas likely to arouse in themselves student interests or values. Consequently, there has been a sharp increase in dropouts and failures in secondary schools and colleges. It would appear that the present curriculum offerings of our upper schools, particularly, are unadjusted to the needs and abilities of at least the lower third of our students.

The acceptance by the faculty and leadership of the Junior College District of General Education as a form of curriculum program most likely to provide a satisfactory plan of content organization to awaken interest and meet the needs and abilities of the disadvantaged youth of this community seems promising. It appears to be a question of how rigorously the program is to be designed to meet the needs of this group that will determine its effectiveness.

It is the purpose of this paper to address itself to this problem. There are two major approaches to the development of general education programs. The older in point of use is the modification of the time-honored subject curriculum through what is known as a broad fields approach. The second is based upon a complete break with the subject-centered approach and moves to a new center of organization designed to provide the curriculum with more functionality.

Historically, there has been at least a three stage evaluation of the attempt to break away from the completely separated and isolated subject curriculum, such as American history, trignometry, or English composition.

1. Correlation:
   In this approach, two subjects such as American colonial history and English literature might be taught separately but relatedly. When discussing certain periods of American colonial history, the English literature class would use literature materials that corresponded to that period, as: Cooper's Leather Stocking Tales, Knickerbocker's History of New York, poetry, and other literature that vivified life in that historical time and place. Or the art class might study some of the art developments of that period.

2. Fusion:
   Many educators felt that correlation was inadequately done. Subject specialists were not interested in each other's subjects, or found it difficult to work together. An advanced procedure was to merge two or three subjects together. For example, American colonial history and geography might be combined so that when considering New England history, the same class would study the geography of the area and its relation to the historical development of the region. This would be repeated in the study of other areas of colonial history; or other subjects might be merged together under one teacher.

A more advanced form of fusion combined the content of two or three subjects around problems that drew upon the content of each. A teacher of high school physics and chemistry decided to combine these subjects and organize them around practical problem situations that drew upon the content of each; as, "How Can I Air-Condition My Home?", or "What's Wrong with the Photograph?" as he presented a kodak picture out of focus and fading.

3. Broad Fields:

When the attempt is made to pass beyond the combining of two or three subjects into one course and integrate several subjects into a single course, by either of the methods illustrated above in fusion, it is usually called a broad fields approach at curriculum reorganization. There are two general patterns employed in the broad fields (general education) approach. The first brings together

(1) Language Arts
(2) Social Studies
(3) Science and Mathematics
(4) Health and Physical Education
(5) Fine Arts and Music

This broad fields pattern maintains the centrality of the subject curriculum but does provide more flexibility to give interrelatedness and to provide the possibility of otherwise inert subject matter becoming meaningful to the learner. As has been discovered, this form of the general curriculum very often has led only hesitatingly in the direction of a vitalized curriculum. It enables the tradition-bound specialist or the timid teacher to remain close to the subject framework with little dynamics to his teaching.

The second type of broad fields curriculum organization can be illustrated clearly on the proposal to organize the curriculum into functional patterns focusing attention upon broad areas of living without reference to any subject field. Very early in its serious curriculum deliberations the North Central Association of Colleges and Secondary Schools suggested the following broad fields or general education pattern:

(1) Health and Physical Fitness
(2) Leisure Time
(3) Vocational Activities
(4) Social Relationships [1]

Such an organization of the general studies program into the type of broad fields devinitely encourages the teachers to think in terms of broad functional areas and to develop their teaching around meaningful aspects of these areas. When this form of broad fields is used the school may be far removed from the traditional curriculum. It may not be far from the core curriculum organizational concept.

May we now consider the core approach as a vital functional pattern of curriculum development for the disadvantaged members of The Junior College District? In the statement made available to members of The Junior College District Consultation Committee on the Educationally Disadvantaged Student, June 11, 1965, at St. Louis, I drew attention to some of the pertinent psychological principles or ideas underlying the Core Curriculum concept:

1. The core approach is completely committed to the psychological principle that all learning comes to the individual through his experiences;

2. The interpretation or meaning the individual gains from these experiences will vary with each learner dependent

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[1] Lewis W. Webb and Others. High School Curriculum Reorganization. Ann Arbor: North Central Association of Colleges and Secondary Schools, 1933; Lewis W. Webb, "Ten Years of Curriculum Planning by the North Central Association," Curriculum Journal. 8:23-238, October, 1937.

upon the total background of his previous experiences. Each learner brings to a new situation a particular experience set which is the resultant of all his previous experiences. Thus his reaction to the interpretation of the meaning of this confrontation with a new situation will be made in conformity with this particular total experience background which he has had. Learning from a given confrontation in the classroom or elsewhere will be different for each student. Thus the important principle of individual differences becomes crucial in any learning experience;

3. The core theory is based upon the psychological principle that learning is the change in behavior that results from each new experience or series of similar experiences;

4. Core also is based upon the principle that learning involves the reaction of the total organism;

5. Core is based upon the Organismic-Field theory of learning;

6. Growing out of the Organismic-Field theory of learning is the principle that motivation is essential to learning, and that motivation arises from the definite purpose or goal seeking of the learner;

7. With the acceptance in Core of the Organismic-Field theory of learning with its emphasis upon purposiveness and goal seeking in learning, "Problem solving" and "critical thinking" become central in learning.

A CORE PROGRAM

The definition of the Core Program quite generally accepted among Core leaders may be stated as follows:

> The Core Program refers to the total organizational activities of that part of the school curriculum devoted

> to the determination of the personal and social competencies needed by all and the procedures, materials, and facilities by which the school assures the adequacy of the learning experiences essential to the development of these competencies.

This definition of the Core Program based upon the psychological concepts referred to above lead inevitably to the characteristics which set the Core apart as it is placed into operation within the school. The list of characteristics of Core which are given below are typical of numerous lists that have been developed by the leaders of the Core Curriculum as observed in school practice and as these characteristic behavioral practices are considered natural outcomes of the psychological and philosophical foundations of Core. Consequently, these statements should be pertinent to the consideration of the problems involved in setting up a valid educational program for the disadvantaged of this community, and possibly of other communities.

CHARACTERISTICS OF CORE

1. The Core idea is based upon the fundamental psychological principle that learning involves change in behavior which is brought about through experience; and that the curriculum consists of those types of learning experiences most likely to produce desirable behavioral change.

2. The Core is organized around those type problems of personal and social concern common to all youth in our democratic society.

3. It seeks to draw upon a wide range of informational sources, materials, and appropriate activities necessary for the solution of these vital problems of personal and social concern. Whatever in the total environment will contribute to the solution of these problems is considered "grist for the mill" by the alert discerning teacher. It involves a complete disregard of existing subject matter lines or subject matter emphasis.

4. The Core emphasises the utilization of genuine problem solving procedures and techniques in the solution of personal-social problem situations.

5. The Core involves and provides for a wide range of teacher cooperative curriculum planning. The Core curriculum activities must be seen and planned for as a whole, and by all teachers as a group as well as individually. In the Core, teachers do not function as "prima-donnas" within their own preempted areas, but as a part of a professional team contributing their general and special skills to the common goals of helping boys and girls develop in minimal degree those competencies for successful living.

6. The Core involves the joint planning of pupils and teachers for the solution of vital problem situations.

7. The Core makes individual and group guidance an integral part of teaching; accepting as the basic responsibility of the Core teacher many of the major functions now assumed by guidance specialists and counselors in the more traditionally organized schools with a subject matter type compartmentalized curriculum. In the Core idea teaching and guidance become largely synonymous terms.

8. The Core idea involves a recognition of the over-all organization of the curriculum into two highly integrated and interrelated divisions; namely, (l) the Core program devoted to the types of problems common to all yough and the common competencies all must possess to function successfully in our democratic society, and (2) the section of the curriculum devoted to the development of the special concerns of the pupils in which individual interests, aptitudes, and abilities are explored and the requisite skills for each are provided an opportunity for development. Both divisions of the curriculum are based squarely upon the recognition that the same principles of learning, teaching methods, and problem organization are equally essential and effective for both.

9. Administratively important to the success of the Core idea if the provision of large blocks of time in the day's schedule to facilitate the maximum use of problem solving processes, guidance and use of community resources.

10. Administratively important to the success of the guidance function of the Core idea is the need to provide for longer intervals of time association between Core teachers and pupils in order that teachers may know the pupils better, their environmental backgrounds, their interests, abilities, and learning development. Some schools are experimenting by allowing teachers to remain as advisors to a group for two or more years.[1]

ORGANIZATION OF CORE

There is a definite form to the organization of Core. It is important at the very beginning to see that organization in its consistent pattern and note how it differentiates itself from the subject discipline pattern which also follows a logical sequence of form though basically different. It should become clear that a basic cleavage is present both in concepts and the sequential development of each. Further, it should become obvious that there are implicit in either, radically different educational procedures which may have far reaching educational implications for the disadvantaged group.[2]

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[1] Roland C. Faunce and Nelson L. Bossing. Development of the Core Curriculum. Second Edition. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1958, pp. 59-60.

[2] From our point of view, these implications are valid for the rest of the student body. However, they can get by as they are; the disadvantaged cannot. The upper level students are not an issue here.

OBJECTIVES

The difference between the Core and subject curriculum concepts comes quickly to light in the statement of objectives. The well-known lists of objectives, except those put in by one educational agency, have shown the implications of the subject emphasis upon the curriculum. The early, more curde type of objectives statement was likely to be cast in a memory form. Indeed, most of the examinations of a former generation were largely informational in form as it was true that at the turn of the century the school curriculums and textbooks were compendiums of information. Even today few would deny that much of what we hold out for students to learn and later evaluate them upon is informational in character. Our schools are giving emphasis to the acquisition of information-knowledge which can be reacted to on a pencil-paper examination with a maximum of memory and a minimum of thinking or evidence of change in behavior. There is almost no evaluation of behavioral change principally because our objectives have not required behavioral change.

It was not until 1938 that one of our very influential national education organizations startled the educational world by publishing a list of objectives cast in the form of behavioral change. This set of objectives was based upon a new theory of learning and the objectives were consistent with the basic learning principle of Core "that learning takes place through experience," and that "experience results in change of behavior."

This set of objectives was the first prominent list of objectives stated in an active behavioral form and thus a logical set of objectives for Core arising out of the same psychological and philosophical thinking that gave rise to the Core idea. This famous statement of objectives is given below in full. Unfortunately the Commission did not maintain throughout a complete active behavioral statement form though this form of statement is implied.

THE PURPOSES OF EDUCATION IN AMERICAN DEMOCRACY

THE INQUIRING MIND: the educated person has an appetite for learning.

SPEECH: the educated person can speak the mother tongue clearly.

READING: the educated person reads the mother tongue efficiently.

WRITING: the educated person writes the mother tongue effectively.

NUMBER: the educated person solves problems of counting and calculating.

SIGHT AND HEARING: the educated person is skilled in listening and observing.

HEALTH AND KNOWLEDGE: the educated person understands the basic facts concerning health and disease.

HEALTH HABITS: the educated person protects his own health and that of his dependents.

PUBLIC HEALTH: the educated person works to improve the health of the community.

RECREATION: the educated person is participant and spectator in many sports and other pastimes.

INTELLECTUAL INTERESTS: the educated person has mental resources for use of leisure.

AESTHETIC INTERESTS: the educated person appreciates beauty.

CHARACTER: the educated person gives responsible direction to his own life.

THE OBJECTIVES OF HUMAN RELATIONSHIPS

RESPECT FOR HUMANITY: the educated person puts human relationship first.

FRIENDSHIPS: the educated person enjoys the rich, sincere, and varied social life.

COOPERATION: the educated person can work and play with others.

COURTESY: the educated person observes the amenities of social behavior.

APPRECIATION OF THE HOME: the educated person appreciates the family as a social institution.

CONSERVATION OF THE HOME: the educated person conserves family ideals.

HOMEMAKING: the educated person is skilled in homemaking.

DEMOCRACY IN THE HOME: the educated person maintains democratic family relations.

THE OBJECTIVES OF ECONOMIC EFFICIENCY

WORK: the educated producer knows the satisfaction of good workmanship.

OCCUPATIONAL INFORMATION: the educated producer understands the requirement and opportunities for various jobs.

OCCUPATIONAL CHOICE: the educated person has selected his occupation.

OCCUPATIONAL EFFICIENCY: the educated producer succeeds in his chosen vocation.

OCCUPATIONAL ADJUSTMENT: the educated producer maintains and improves his own efficiency.

OCCUPATIONAL APPRECIATION: the educated producer appreciates the social value of his work.

PERSONAL ECONOMICS: the educated consumer plans the economics of his own life.

CONSUMER JUDGMENT: the educated consumer develops standards for guiding his expenditures.

EFFICIENCY IN BUYING: the educated consumer is an informed and skillful buyer.

CONSUMER PROTECTION: the educated consumer takes appropriate measures to safeguard his interests.

THE OBJECTIVES OF CIVIC RESPONSIBILITY

SOCIAL JUSTICE: the educated citizen is sensitive to the disparities of human circumstances.

SOCIAL ACTIVITY: the educated citizen acts to correct unsatisfactory conditions.

CRITICAL JUDGMENT: the educated citizen has defenses against propaganda.

SOCIAL UNDERSTANDING: the educated citizen seeks to understand social processes.

TOLERANCE: the educated citizen respects honest differences of opinion.

CONSERVATION: the educated citizen has a regard for the nation's resources.

SOCIAL APPLICATION OF SCIENCE: the educated citizen measures scientific advance by its contribution to the general welfare.

WORLD CITIZENSHIP: the educated citizen is a cooperating member of the world community.

LAW OBSERVANCE: The educated citizen respects the law.

ECONOMIC LITERACY: the educated citizen is economically literate.

POLITICAL CITIZENSHIP: the educated citizen acts upon answering loyalty to democratic ideals.[1]

AREAS

As the older statement of objectives implied a curriculum base that made possible the amassing of encyclopedic information--knowledge, and lead most naturally to a curriculum composed of compendiums of this information-knowledge organized into handy subject discipline areas, so the Core concept of learning also requires a radically different curriculum with logically consistent areas within which learning experiences can take place -- they do not take place in disciplines of rigid compendiums of unrelated facts-knowledge. The Core curriculum areas must be consistent with the psychological and philosophical basis of the Core concept. Logically, too, this behavioral learning required by Core must be behaviorally functional. Meaningless behavior obviously

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1. The Educational Policies Commission, The Purposes of Education in American Democracy. Washington D.C.; The National Educational Association, 1938. It is of interest to recall that the same Commission six years later, 1944, was one of the major educational organizations to set up the Core Curriculum as an ideal for American secondary schools, in the now famous publication, Education for All American Youth. Washington, D.C.: The National Education Association, 1944 Revised 1952.

is ridiculous. Learning does not take place in a vacuum nor in irrelevant situations.

It might not be out of place here to observe that the old concept of the curriculum as subject matter, subjects, or courses of study is now obsolete in modern educational and curriculum thinking. Rather, the curriculum is now defined as the total environmental matrix provided by the school in which the learner has experiences and from which it is hoped desired behavior patterns will result. In other words, the school now is confronted with the necessity of evaluating the learning situations it tries to set up with the behavioral patterns or competencies that result.[1]

ORGANIZATION PATTERNS OF THE CORE CURRICULUM

1. Virginia

Major functions of Social Life:

1. Protection and conservation of life, property and natural resources.
2. Production of goods and services and distribution of the returns of production.
3. Consumption of goods and services.
4. Communication and transportation of goods and people.
5. Recreation.

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[1] Further see Harl R. Douglas, Editor. The High School Curriculum. Third Edition. New York: The Ronald Press, 1964. pp. 23-24. Vernon E. Anderson, Principles and Procedures of Curriculum Improvement. Second Edition. New York: The Ronald Press Company, 1965, pp. 6. For discussions of the modern conceptions of the curriculum.

6. Expression of aesthetic impulses.
7. Expression of religious impulses.
8. Education
9. Extension of freedom.
10. Integration of the individual.
11. Exploration.

II. Mississippi

Major Areas of Human Activities:

1. Protecting life and health.
2. Home making.
3. Conserving and improving material condition.
4. Cooperating in social and civic action.
5. Getting a living.
6. Securing an education.
7. Expressing religious impulses.
8. Expressing aesthetic impulses.
9. Engaging in recreation.

III. Santa Barbara

Basic Functions of Human Living:

1. Developing and conserving personal resources.
2. Developing and conserving resources other than personal.
3. Producing distributing and consuming goods and services.
4. Communicating.
5. Transporting.
6. Re-creating and playing.
7. Expressing and satisfying spiritual and aesthetic needs.
8. Organizing and governing.

IV. Stratemeyer

Persistent Life Situations:

1. The family.
2. Civic social activities.
3. Work.
4. Leisure.
5. Spiritual Life.

References

1. Tentative Course of Study for the Core Curriculum for the Virginia Secondary Schools, Grade VIII, Richmond, Virginia: State Department of Public Instruction. P. 15-24.

2. Mississippi Program for the Improvement of Instruction Curriculum Reorganization in the Secondary School. Grades 7 - 12, Bulletin No. 7, Jackson Mississippi: State Department of Education, 1939.

3. Experimental Curriculum in the Santa Barbara City Schools, Bulletin No. 1, Revised Edition, November, 1941, pp. 22-63.

4. Florence B. Stratemeyer and Others, Developing a Curriculum for Modern Living, New York: Bureau of Publications, Teachers College, Columbia University, 1947, p. 22, revised Edition, 1957, Chapter 6.

5. A discussion of the Mississippi list is to be found in O. I. Frederick and Lucille Farquear, "Areas of Human Activities." Journal of Education Research, XXX, PP. 672-279, May, 1937.

To seek changed behavior, or learning through the kinds of experience situations to which the student is exposed requires that the school and the teacher reverse the processes of traditional teaching. Now attention must be focused upon the educational ends desired and secondly upon the means. Concern must be with goals, the behavioral competencies desired of the learner, and then the means by which these are to be attained. The traditional disciplines are no longer in primary focus. Obviously the behavioral competencies which youth should achieve are to be focused in the areas of living environment where living naturally takes place, and in harmony with the psychological concepts of learning which underlie the Core idea, goal seeking for the learner must center around the personal, social-societal problems that concern the individual. Unless thus motivated, the learner is not challenged, learning does not take place, and we are confronted with the well-known results of dropouts and failures in school. Much worse, the competencies urgently needed with which to function in life are not attained.

To meet this situation, the Core approach organizes the school program around the recognized personal, social-societal problems that confront youth. So that these be genuine and vital problems to the immediate learners, it is essential that the students and teacher together determine what these are. These problems are then developed into units for instructional purposes by teachers and students working together, as part of the learning process for students.

The problem when organized into a unit represents basically the broad outlined steps in problem solving, since, in fact, the unit is the planned attempt to solve a genuine problem, and, thus, develops skills in problem solution.[1]

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[1] For more detailed discussion of the unit idea see: Roland C. Faunce and Nelson L. Bossing, Developing the Core Curriculum. Second Edition, Englewood Cliffs, N. J.; Prentice-Hall, Inc. 1958, chapters 6, 10, 11. Harl R. Douglas, Editor, The High School Curriculum, Third Edition, New York, The Ronald Press Company, 1956, Chapter 12. Nelson L. Bossing, Teaching in Secondary Schools. Third Edition. Boston: Houghton Mifflin Company, 1952, Chapter 3.

A PLAN OF OPERATION

From what has been indicated in this paper, there is a basic difference between the subject and Core approaches. It is the firm conviction of this consultant that the Core approach offers many advantages in moving toward solution of the problems faced by The Junior College District in its attempt to meet the educational needs of its disadvantaged youth.

The traditional subject discipline organized curriculum has failed, here as it has failed throughout the country, and I am convinced will continue to fail because it does not have the answer to the problems of the disadvantaged.

On the other hand, there has been presented in this paper the attempt of those who hold to the subject type curriculum to overcome some of their difficulties through some form of a "broad fields" pattern of curriculum organization. The most extreme type of organization that has been set up, as described, in reality abandons the subject curriculum in its organization. This second type of broad fields organizations would be a compromise approach to the solution of the problem of The Junior College District because it moves in the direction of Core. Its weakness lies in its attempt to hold on with one hand to the old and with the other hand grasp the new. Some good probably would result, it is better than the old, and in it some approach could be made to the needs of the disadvantaged. It is the contention here that only a clear cut recognition of the unique educational problem that confronts us and the acceptance of an educational plan that has inherent within itself the possibility of solving it, is worthy of the consideration of the staff of The Junior College District.

In order to experiment with the application of Core concepts to the development of the General Curriculum program, it would be necessary to make arrangements for a consultant to work closely with all consulting teams and junior college staff. Perhaps the major reason that Core has not been tried previously on the college level rests with the strong subject matter orientation of college instructors. A considerable amount of in-service training would be required to even move in the direction of a Core approach.

A PROPOSED PROGRAM IN HUMANITIES FOR THE GENERAL CURRICULUM

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Appendix B (2)

INTRODUCTION

From what I have been able to gather concerning programs for low-level and remedial college students, I would suggest that most such programs are rather heavily oriented toward somewhat experimental rather than traditional methods and curricula. For instance, team teaching is widely employed, and there seems to be a much greater emphasis upon the use of various audio-visual media including tape recorders, record players, films, slide projectors, overhead projectors and the like. Also, there is an emphasis upon programmed materials in the basic skills.

The college curricula is likewise less traditional, more experimental. Old subject-matter boundaries are being hurdled or by-passed. New wider, and more-encompassing programs are being offered in their stead in the hope, surely, of creating an atmosphere in which it is or will become possible to relate and assimilate knowledge rather than view it in a vacuum. These programs attempt to define man's place in the universe by demonstrating not only its diversity, but its immediate accessibility.

Various programs in the sciences, social sciences, and the humanities have been geared to involve the student in his world, to challenge the mystery of the learning process, and to measure real achievement. Of course, most such curricula are in the process of development and results are not complete. It is to be hoped that these programs will remain in the process of development, that results will never be complete, but that student improvement and student confidence will be clearly observable.

The primary philosophy behind most of the programs I have encountered is two-fold: One purpose seems to be to salvage the student for further academic training and the other to salvage him for society. The emphasis varies according to the school, but I would suggest that our purpose in this proposal go one step farther and attempt to salvage the student for himself. This may appear to be a naive and somewhat romantic notion, but I assure you that there is more to the process of individual fulfillment than making acceptable grades in college and being accepted by society. A man spends a good part of his life by himself, and unless he can contend with his own personality and his own abilities and his own interests, he is likely to wind up with anxieties and frustrations that do not necessarily correlate with either his academic or social standing.

With specific reference to a Program in General Education for the Educationally Disadvantaged, it would be the principal purpose of the Humanities Curriculum to provide the atmosphere condusive to self-discovery. It is clear that people do develop interests in subjects they know something about. The Humanities Curriculum would seek to involve the student in the necessity for thought, the obligation to learn, and the satisfaction of achievement.

The more a man knows, the better off he is, the richer his life becomes. If he knows the basic principles of logic, he is better equipped to understand his own position in the world. If he knows the basic principles of design, he is better able to understand and appreciate the myriad functional and esthetic forms by which he is surrounded. The same is true for music, for the challenge of philosophical thoughts, for literature. The man who can read and think, view with pleasure, and listen with satisfaction, is the man who will benefit most from his private hours. And it is here that a large part of his character is developed.

A HUMANITIES PROGRAM

In this proposal for a General Humanities Program for the Educationally Disadvantaged, it should be established at the outset that it is my firm belief that there are certain areas and aspects of the human personality which can never be tested or measured with any accuracy. One of these is the matter of simple satisfaction or pride. T. S. Eliot has stated with perfect awareness that there is no possible way to communicate emotion directly. One cannot look at his friend and say, "I am happy", or "I am grieved", and hope to transfer his own feelings. It takes more. It actually takes metaphor for any degree of success. Similarly, the man who discovers something in literature or art or music for the first time in his life, who can generate a real interest in reading or looking or listening for its own sake; this man will be a difficult subject to "measure". Unless he, like Keats, can recreate the "emotion" of discovery, we must be content with observable advancement in performance or technique, but we must also remember and remain aware that people are more than packages of conditioned responses, and that if we could test and measure them completely, there would be little cause for concern with our present problem. The way would surely be clear.

The objectives for the General Humanities Program, as previously stated, are here restated as follows:

a. The student will be brought to understand that he has the personal responsibility to develop his intelligence and his talents.

b. The student will be brought to understand the necessity for the development of consistent, logical thought and study patterns and that they are fundamental to the learning process.

c. The student will be brought to understand the necessity for effective communication.

d. The student will develop the ability to improve the effectiveness of his own written and spoken language.

e. The student will be brought to understand the cultural advantage derived from a knowledge of art, music, literature, and philosophy.

f. The student will assimilate the basic principles of art, music, literature, and philosophy through exposure to and participation in a systematic, inter-disciplinary learning program.

g. Finally, the student will develop the awareness that his existence and his personal responsibility are one; that he represents an organic segment of society; and that his conduct must reflect a commitment to work toward self-attainment for his own satisfaction as well as for the improvement of society in general.

With the assurance of more repetition, I will again state that the General Humanities Program as I foresee it should provide an integrated, inter-disciplinary offering in reading, writing, speaking, music, art, philosophy, and logic. Since the entire program for the Educationally Disadvantaged is to be taught by teams, there may be some confusion as to actual semester "hour" requirements, but in any event, I suggest that in the one-year sequence, the student takes the equivalent of at least twelve semester "hours" in General Humanities. Included within this "hour" load will be the English Composition sequence. I mention this particularly since I would like to propose a departure from the conventional approach to composition. Not only is composition frequently taught in an outmoded, frigid, deadly-dull fashion, it is also many times taught in a vacuum that bears no resemblance to anything familiar to the student. Whimsical instructors ask students to write on impossible subjects. Imagine being asked to write 500 organized, coherent words on "America Today," or "Man's Place in the Universe," or "Motherhood." Such marvelously general abstractions have about as much relevance for the average student, not to say the educationally disadvantaged student, as the rituals of Eskimo courtship might have for a cat. So much time is wasted simply because writing is not related to reality, to the tangible here and now.

One more egregious example of near universal nonsense in composition program is the hallowed ceremony of the research paper. Why is it that one is led to believe that the apotheosis of writing competence is achieved at the moment one can finally follow a style sheet and get all the commas in the right places? Of course, there should be more than this to the research exercise and there usually is, but the simple fact is that although the research paper may be helpful in instructing the beginning student in research, it rarely, if ever, teaches him the slightest thing about writing.

My suggestion at this point is that during both semesters of the Program in General Education for the Educationally Disadvantaged, the Humanities offering be oriented toward intensive training in reading, writing, speaking, and logic; as well as in art, music, and philosophy to a somewhat lesser degree. The difference between the first and second semesters would be not in kind but in degree. There would simply be progress in the sophistication of materials and hopefully of response. If possible, I would like to see the program organized either on a daily basis or in two-hour sequences, three days a week; for the student who is an extremely low tester in verbal capacity, I suggest a fundamental learning laboratory with programmed instruction. This, however, should be extra, and the student should participate as well in the regular Humanities program.

The fundamental direction of the Humanities program is toward awareness. This necessitates thought, and thinking people have a way of demanding communication. Through the integration of reading materials including essays, plays, stories, novels, and poetry; through an introduction to basic principles of logic and philosophical concepts, through exposure to art and music, the student may be brought to understand that communication has many media, that communication or the desire to communicate is innate in man and that the ability to communicate should and must be developed. From this beginning we should make use of every means available to create and hold interest in the program.

I think that the way to do this is to place the student in a living context with people like himself. I think that the students should learn to share the errors of others and to appreciate improvement. I think that the more spirit the teaching team can develop, the greater success the program will have. One means of developing enthusiasm is by using every audio visual device which has any utility whatsoever. We can make extremely productive use of records, slides, tapes, films and transparencies of the student's own work. Another means of establishing rapport is actually to compile and print, perhaps in workbook form, the collection of student themes. Another is to privide for independent study space. Another is to involve the students themselves in classroom presentation beyond merely listening or answering a question now and then. Literally, there are as many ways to generate and maintain interest as the good, imaginative teacher is willing to try.

Here I should mention that although I do not believe in coddling students, I do believe that a sensible, one-step-at-a-time approach should be established, especially at the beginning of the program. One does not teach a child to speak words by giving him a phonograph record of *Hamlet*, and neither does one teach an educationally disadvantaged student about art, music, literature, or anything else by plunging him up to his ears in tradition. The educationally disadvantaged student is not ready for *Oedipus Rex*. He may be ready for *Death of a Salesman*, or *Streetcar Named Desire*, or *Come Back Little Sheba*, but he is not ready for Sophocles. He is not ready for Shakespeare either. The language is too difficult. The student is frustrated by terms, places, by history itself. Place him first in the present. Orient him to the literature, the art, the music, the ideas of his own time; help him achieve an interest in communicating not only his reactions to ideas but his own ideas. Do not be concerned at first with style; look for simplicity, directness, accuracy. One step at a time toward whatever degree of sophistication the student can attain.

A PROPOSED PROGRAM IN SCIENCE FOR THE GENERAL CURRICULUM

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Appendix B (3)

INTRODUCTION

As with every part of the curriculum to be developed for the educationally disadvantaged, the science program is to be designed to meet the special needs of this group. Unfortunately, at this time no one really knows what their needs are, and indeed, the identification of these needs will be one of the substantial contributions of the experimental program. We must, therefore, formulate objectives of the program which seem to be appropriate in view of our present impression of the needs of these students, with the understanding that sufficient flexibility is to be allowed so that changes in approach, subject matter, and even the objectives themselves can be instituted if experience indicates the original concepts were unrealistic.

The likelihood of any of the students in this program eventually becoming scientists or engineers is so remote as to be negligible. The objectives of the science program, therefore, become those of the science programs in all general or liberal education curricula, but somewhat altered by the special problems of these students. The program will contribute to the general cultural background of the student, to help prepare him to function as an informed citizen in a technologically oriented society. But in addition the program will take advantage of whatever natural curiosity the student has about his environment to stimulate his general academic performance. The guiding philosophy has been stated by Eric N. Rogers (1948):

"In general education,...we need not try to equip everyone with a lot of scientific knowledge (that can be stored in books or left to the professionals): but we do need to give an understanding of science and its contribution to the intellectual, spiritual, and physical aspects of our lives."

The following objectives are postulated as desirable and capable of fulfillment in the science program. Upon completing the science program, the student should be able:

1. to recognize that his total environment is made up of both visible and invisible components, and to describe his environment in terms of these components;

2. to recognize the universal variability of the components comprising his physical environment and to discuss some observed changes in terms of the laws of physics and chemistry;

3. to interpret changes in his environment in terms of the interaction between components, with the principles of conservation of mass and energy as unifying elements;

4. to trace the history of the development of a few important ideas in science in terms of a sequence: observations, empirical laws, formulation of a question, further observations, formulation of an hypothesis, tests of the hypothesis, further observations, etc. Example: planetary motions and the structure of the solar system, the universal law of gravitation, the atomic structure of matter, the dual nature of electromagnetic radiation, genetics and the transmission of characteristics to offspring;

5. to establish mathematical models of simple physical systems and use mathematical operations on these models to derive conclusions about the systems. He should be able to recognize the role of simplifying assumptions in the establishment of mathematical models, and be able to distinguish between assumptions, conclusions, and generalizations (Dressel, 1954);

6. to read with comprehension popular articles on some aspects of science and to use library facilities to find background on interesting articles on unfamiliar subjects;

In addition to these specific objectives, the students should come to appreciate science as one valid method of seeking the truth,one method of solving problems. He should recognize that the conclusions of science are always tentative, and that scientists should be prepared to revise their conclusions as new data become available.

Since 1958, a great deal of effort has gone into the development of new teaching materials and new approaches to science education in the elementary and secondary schools. The most obvious result of this effort is the development of new secondary school science courses, for example, PSSC physics, BSCS biology, and ESCP earth science. Although these new programs have not met with unanimous approval, they have gone a long way toward changing the content and approach of science programs to be more in correspondence with the needs of today. The Keynote of these programs is investigation. The students are given the opportunity to discover conclusions of science from their own observations; they are not submerged under a flood of unrelated facts.

There has been no comparable organized effort at the college level. Colleges have slowly come to recognize that a meaningful science experience is essential to a liberal education, but the development of suitable programs is far from complete. Many institutions are experimenting with the content and approach of science courses for non-science majors.

Advances in the development of such courses are of interest to the Junior College District program, but they cannot provide the complete solution for the special type of student being considered here. The courses in physical science being developed are aimed at the average to above average college student, not the educationally disadvantaged. They can, however, provide useful guidelines for the Community College program, though the depth and breadth may have to be reduced.

The results of the Community College experimental program will be, in turn, of interest to college faculties and administrations working on the development of science programs for non-science majors. Even though this program is directed to the needs of a specific population, conclusions applicable to a much wider group should be obtained.

One tangible evidence of the attention that science education for the general college population is receiving is to be found in the number of new text books that have appeared in recent years. These books attempt to give an overview of physical science as a unified discipline. The best of these books are more than "surveys" of science. Selected concepts from physics, chemistry, astronomy, and geology are presented as separate topics, but an effort is made to show the essential interrelation of these traditionally distinct disciplines. Some of these use the investigative and historical approach which is to be employed in the Community College science program, and one of them might be suitable as the basis of the course. None of these books includes biology, and if topics fromthe life sciences are to be included, other materials will be required.

The following are recent books of the type that has been described. All are written at the college freshman level.

1) Anfinson, Olaf P., Understanding the Physical Sciences, Boston: Allyn and Bacon, Inc., 1963.

2) Cleveland, John M., Physical Science, Columbus, Ohio: C. E. Merrill Books, Inc., 1964.

3) Miles, Voden W., Phelps, Everett R., Sherwood, G. Ray,and Parsons, Willard H., College Physical Science, New York: Harper and Row, 1964.

4) Rosen, Sidney, Siegfried, Robert, and Dennison, John M., Concepts in Physical Science, New York: Harper and Row, 1965.

The laboratory investigations developed for the new secondary school science programs can be readily adapted to the Community College experimental program. These investigations do not emphasize laboratory technique or the manipulation of elaborate equipment. The emphasis is on the interpretation of data by the student. In many of the investigations the student does not know how the experiment is supposed to come out, and he is not trying to prove that something he has been told beforehand is true. The advantage of this approach in developing attitudes of open-mindedness and intellectual honesty is obvious.

A SCIENCE PROGRAM

As stated above, an investigative approach to scientific knowledge is to be employed. Strong emphasis will be given to the evolution of man's understanding of the universe and his immediate environment.

An investigative approach requires much time for the development of a single major idea. This, in turn, implies that only relatively few topics will be included in the program, and no attempt will be made to "cover" in detail all of any branch of science. It is felt that this approach will best serve to impart to the students a feeling for the methods of science. These students do not need a large number of scientific facts at their disposal. They can be given the rewarding experience of enjoying the excitement of discovery of the operation of some aspects of the world they live in.

The intent of the historical approach is to encourage the students to be critical in their reading about scientific discoveries. They will learn that accepted scientific theories are the end product of long and often painful effort by many investigators. Our knowledge of science does not spring fully grown from the foreheads of infallible geniuses. If they come to associate advances in science with individual men, men who made mistakes and men who were often misled by preconceived notions, they will develop a healthy skepticism concerning some of the sweeping pronouncements they are likely to encounter later. On the other hand, they will come to appreciate even more the tremendous accomplishment represented by the great scientific discoveries of the past and the present. We do not need citizens who stand in awe of science; we need a population that appreciates the world in which they live.

The choice of the particular topics to be included in the program is not very important. They should be significant scientific problems that illustrate the evolution of knowledge referred to above. The choice can best be left to the individual instructor, depending on his special interests. At least some of the topics should relate to the student's immediate environment. Material from meteorology and geology lends itself well to direct observations by the student. Meaningful observations of the motions of the sun, moon, and planets can be made by students, enabling them to conclude, under guidance, something about the structure of the solar system. Part of the research under the program will be directed to the determination of the broad areas of science of greatest interest to these students. The initial choice of topics should be broad enough to permit a test of this question.

A PLAN OF OPERATION

It is likely that one of the freshmen level texts listed above, or the equivalent, can be used initially as the basis of the science program. The books will have to be examined for reading level, in view of the difficulties of the student group involved. A sequence of laboratory investigations will have to be developed, and these investigations should be the basis of class discussion, lectures and other classroom activities wherever practical.

The laboratory manuals of the new physics, chemistry, biology, and earth science curricula for secondary schools will be valuable source of ideas for suitable investigations. A new laboratory manual will be developed as part of the experimental program. Audio-visual aids such as motion pictures, film strips, and film loops are readily available for all important areas of science.

The most obvious interdisciplinary opportunity is that relating the programs in science and mathematics. The students should be required to use the mathematics at their command throughout the science program, and some problems in the mathematics program should relate directly to the topic studied in science. In this way, the students will be given added motivation for learning mathematics; and will come to understand the quantitative nature of science. The students should also come to realize that much of mathematics was invented because it was needed to describe the world in which men live. From counting, to land measurement, through the study of motion and the behavior electrons in atoms, mathematics and science have grown together. This viewpoint in no way will detract from the importance of pure mathematics.

The historical approach to be adopted lends itself well to the interrelation of thephysical sciences and the social sciences and history. The students are growing up in a world in which the impact of new scientific knowledge on society is immediate and of utmost importance. The importance of the great shortening of the time interval between the discovery and the application of new knowledge in the last fifty years or less can be emphasized.

Scientific discoveries have had great impact on philosophy and attitudes toward religion. These areas offer another opportunity for relating the science and humanities parts of the curriculum.

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A PROPOSED PROGRAM IN MATHEMATICS FOR THE GENERAL CURRICULUM

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Appendix B (4)

INTRODUCTION

We are dealing here with a population rated as the lowest third of entrants to The Junior College District. All will have graduated from high school, but in absolute terms their academic performance has been disappointing. Yet all will have voluntarily undertaken a further experience in learning. This group comprises students of innately low ability, slow learners, the culturally disadvantaged, and some under-achievers. It is doubtless not possible at admission to distinguish sharply which of these categories a given student actually belongs to; moreover, the classifications themselves are doubtlessly overlapping. It may be expected, however, that in the course of the year's program in the General Curriculum most students will tend to sort themselves out into one or another of these categories.

There are a number of variables affecting this population, bearing on the design of any program in mathematics, which relate to the experience of the students with mathematics, e.g., the extent of school and possibly other work in mathematics, the knowledge and skills effectively available as a consequence of that work, the quality of the experience with mathematics and the attitudes this has engendered. While it is not prerequisite to the establishing of an effective mathematics program that all such variables be evaluated for all students, it is important for the progressive modification and improvement of the program that as much information as possible about students be accumulated from the achievement tests, aptitude tests, psychological assessments, and the like. In short, a part of the record of every student should be a profile relative to mathematics.

The most significant learning occurs, it may be reasonably supposed, when the learner addresses himself to some pursuit aimed at advancing purposes which he apprehends and largely accepts, and in which he involves his brains, feelings and other capacities. One plausible argument for including mathematics in the General Curriculum is its probable usefulness, in such guises as shop mathematics or business mathematics, in the occupations in which students may be presumed ultimately to be engaged. Indeed, this view acquires added force from the undeniable concern of students that what they study should be of some demonstrable utility. Without in the least discounting the validity of this position, however, a good case can be made for the even greater potential utility of a mathematical way of looking at problems and a mathematical way of going about their resolution. It is this approach to mathematical method, exemplified in a variety of situations, which is the purpose adopted for the mathematics component of the General Curriculum for The Junior College District.

The general aim, then, is to provide an organized and genuine experience in mathematics which:

1. Centers on a series of perhaps half a dozen significant and relatively self-contained problems capable of mathematical formulation, though usually not already occurring in that form.

2. Develops particular mathematical principles and techniques within the context of their actual relevance to solutions of these problems, even partial ones.

3. Seeks explicitly, and with progressively greater emphasis, to identify and exploit deeper mathematical elements shared among the principles (and techniques) evolved to handle seemingly desperate problems.

4. Places limited demands on detailed mathematical knowledge and skills presumed to have been acquired from the study of mathematics in school, and, over and over, calls upon a few basic principles in arithmetic, algebra, or geometry which are applicable in a variety of situations.

5. Does not obstruct further study of mathematics in standard courses.

It may perhaps be said that this is a much too abstract view of mathematics. It is abstract, to the extent that it is only by considerable abstraction that we can sufficiently separate a principle or technique from the particulars of its original exemplification to render it applicable, and therefore useful, in some new situation. Furthermore, it may be noted that there is some evidence that for the culturally disadvantaged, mathematical abstractions (and symbolism), which - because of the special language--do not have to meet a conflicting common language in the students' homes and social environment, are more successfully dealt with than are literary or other subjects in which a less specialized language is used.

A MATHEMATICS PROGRAM

The program in mathematics must meet two basic conditions: It should make limited demands on detailed knowledge and skills derived from school studies, to minimize the impact on students of any cumulative deficit in mathematical learning; it should provide during the year for a number of clearly marked fresh starts on new problems, to guard against the negative effect on students of cumulative failure in mathematics. What precisely is studied in this year of mathematics is, to a considerable degree, less significant than the way it is studied, though it by no means follows that all mathematical topics therefore have an equal claim for inclusion in the program. The topics presented as units for the course are offered in a sequence which is planned to establish at the beginning a certain framework in descriptive set theory and elementary logic and to reach at the end an analysis of one concept of great mathematical power, that of function. As for the conceptual structure and methodology of mathematics, these should become progressively more evident as they are made to emerge from their exemplifications in the different problems which are treated. (It is further hoped that some mathematical models fruitful for the natural and social sciences and humanities can be carefully developed.)

Following is the proposed list of mathematical topics. It is to be emphasized that these are intended to be presented as problems which offer prospects for consequential mathematical analysis. Standard expositions should occur relatively rarely.

1. Sets and elements of logic: From an initial conception of a set as a collection of objects, the aim will be first to establish a useful language of sets, in terms of which relations between sets and operations on sets can be formulated. Some problems in comparing and counting sets can be investigated. The work in logic will aim at an analysis of the simple logical structure of sentences in terms of truth and falsehood and the compounding of sentences by means of logical connectives considered as operations (e.g., conjunction, denial). Relations of equivalence and implication between sentences will be considered in investigating how to tell in some cases when two sentences mean the same thing logically or when one logically follows from another. The intention throughout this whole unit is not to teach sets or logic as such but rather to introduce mathematical concepts which will recur over and over in succeeding units, and by exhibiting their fruitfulness to establish them as parts of each student's working mathematical equipment. Neither sets nor logic will have the appearance of being just like school mathematics, and this can be a substantial advantage. Sources: Notes (There are many sources from which this material can be adapted, one being Kemeny, Mirkil, Snell, and Thompson, Finite Mathematical Structures, Prentice-Hall, 1959).

2. Coordinate geometry: The unit will open with the problem of locating points on a surface (e.g., street addresses, maps) and introduce the concept of coordinate system. Coordinate systems on lines will be considered and therewith the representation (graph) of a set of numbers as a set of points. Coordinate systems in planes will follow and be specified to a rectangular

Cartesian system. Distance between points can then be treated in terms of coordinates. Sets of points representing sets of ordered pairs of numbers obtained from equations or other sentences will be examined. The converse problem of finding for a given set of points an equation or other sentence which yields that set of points will also be considered. Circles and lines in particular will be dealt with. Sources: Taylor and Wade, Subsets of the Plane: Plane Analytic Geometry (John Wiley, 1965).

3. Computation: First to be considered in this unit are some simple properties of numbers in decimal form (e.g., "casting out nines," representation by repeating decimals). Representation of numbers in bases other than ten can then be studied. Substantial experience with computation with approximate numbers will be a large part of the unit, including construction of a table (e.g., square root, sine). The aim here is to promote a more active and flexible attitude to calculations with numbers by exhibiting these in new ways. Opportunities for "educated guessing" can be provided at many places. Sources: Courant and Robbins, What Is Mathematics? (Oxford, 1941); School Mathematics Study Group, Mathematics for Junior High School (Yale 1961).

4. Area: The problem here is to arrive at a usable and mathematically satisfactory concept of area for at least a certain class of plane regions which includes all polygons. The point of departure is the principle that one region is considered to have the same area as another if the first can be cut into a finite number of pieces which can be assembled to form the second region. The analysis can be carried toward the point of defining area for regions not exclusively bounded by straight lines as a limit of successively more refined polygonal approximations. The area of a circle can be found in this way. Sources: Boltyanskii, Equivalent and Equidecomposable Figures (D. C. Heath, 1963); Archimedes, Measurement of the Circle (in The Works of Archimedes, Dover, 1956).

5. Probability: In this study an orderly analysis of chance events which has predictive power will be achieved. Here the earlier descriptive set theory comes powerfully into play, events being considered as sets of outcomes in a space consisting of all possible outcomes. In addition to standard problems (e.g., coin tossing), some less familiar ones can be considered (e.g., projecting the behavior of a thumbtack which is repeatedly tossed, setting bets, dissolving a partnership equitably). Sources: Goldberg, Probability: An Introduction (Prentice-Hall, 1960); Mosteller, Rourke, and Thomas, Probability with Statistical Applications (Addison-Wesley, 1961).

6. Motion in a straight line: The plan of this unit is to study linear motion with the aim of supplying a suitable mathematical model for it. Some mention of the history of the problem can usefully be made. A study of falling bodies and of the inclined plane will be included. Approximate computation, graphical presentation of data, curve fitting, and use of formulas to express results will all be important in these investigations. Sources: Physical Sciences Study Committee Texts (Heath, 1963).

7. Functions: A function will be explained as a rule which associates with the members of one set uniquely members of another set. One form in which a function can be presented is graphical: a function can be identified as a certain set of ordered pairs. Graphs of functions will be studied to analyze the behavior of the functions represented. A second form in which a function can be presented is through an equation: values of the function can be computed for assigned values of a variable. Formulas which specify functions will be studied in this connection. Throughout the unit there will be ample opportunity to draw from the preceding units many and varied examples of functions. The aim will be to exhibit the power of the concept of function to organize a great range of mathematical phenomena, and to show the applicability of functions.

Sources: There are many sources which can be adapted, one being College Mathematics Staff of the University of Chicago, Concepts and Structure of Mathematics (Chicago, 1954).

To recapitulate, from the abundant problem areas in which mathematics can figure significantly, those outlined give the intended scope and approach of the year's program. By beginning with problems, and moving through tentative to more exact mathematical formulations, the planned sequence could evoke in students a more active response to situations in which mathematical analysis may be productive. Furthermore, there is ample opportunity to exhibit purely abstract mathematical forms and structures as these are progressively identified. Finally, the suggested units include a good range of what is conventionally regarded as standard mathematics.

Major anticipated behavioral outcomes of this mathematics program are specified below. These are to be understood as represented in behavior which can be observed, or as capacities which can be inferred from observed behavior. As such they should, therefore, be open to testing:

1. Knowledge of certain mathematical concepts and facts (e.g., inclusion (sets), graph of a set, locus (geometry), order (arithmetic), error (arithmetic), value of a function);

2. Ability to use directly in relatively simple application mathematical skills and techniques (e.g., finding the connective pattern of a sentence (logic), transforming equations into equivalent forms (algebra), constructing the graph of a sentence (geometry), adding and multiplying decimal approximations of numbers (arithmetic), computing the value of a function);

3. Ability to identify in a situation not too complex, elements capable of some mathematical analysis, to formulate out of these a problem to be treated, to carry this treatment some considerable way toward a solution of the problem, and to check the solution obtained against the problem as stated.

A PLAN OF OPERATION

In the 1940's, at a number of colleges and universities, there were successfully developed mathematics courses in programs of general studies, which more adequately reflected the nature of mathematics and its relevance to other disciplines than did the then traditional freshman and sophomore courses. Notable in this undertaking were Yale, Chicago, Reed, Haverford. In the 1950's, efforts were initiated to improve the secondary school mathematics program by bringing it more into touch with developments in mathematics, and especially by bringing into evidence more of mathematical structure, by providing new text material, and by providing for in-service training of teachers in new ways of doing school mathematics. Some of the innovations in elementary undergraduate mathematics of the 1940's became prominent in these school programs. The University of Illinois Committee on School Mathematics and the School Mathematics Study Group have had the greatest impact and continue to do so.

Now in the 1960's there have been many reviews of the relationships between secondary school and undergraduate mathematics. The Committee on the Undergraduate Program in Mathematics, the Cambridge Conference on School Mathematics, and the School Mathematics Study Group have made recommendations-and will do more along these lines-regarding the mathematics which spans the late secondary school and early undergraduate years. Moreover, there is growing concern for the educationally disadvantaged school population. Here is where the mathematics component of The Junior College District General Curriculum fits, and it is from the new school or college programs so far achieved that materials can be found for the program. Among possible sources are: the series "Topics in Mathematics" produced in English-language adaptation by the Survey of Recent East European Literature in School and College Mathematics (published by D. C. Heath), the series "New Mathematical Library" produced by the School Mathematics Study Group (published by Singer), Polya's "Mathematical Discovery", and a number of series of mathematical expositions (published by Heath, Webster, and others). None of these may quite meet the requirements at The Junior College District for presentations of material in mathematics, but they can certainly be of value in providing material which can be modified appropriately.

The provision of mathematical material (not excluding any of the various forms in which it is technically feasible to present it today) is a major necessity for the mathematics program outlined. At first, however, it seems desirable to keep matters relatively simple, and anything short of outright standard expositions could be tried. What is wanted is enough in the way of presentation in a suitable form to get students really involved with a problem. Where the inquiry may then lead is not easily predictable, and should most emphatically not be rigidly specified. The greatest responsibility rests with the teachers, for if they are clearly competent, are excited about what they are doing, and are prepared to guide rather than direct, then even with rather spotty materials the work is bound to progress favorably.

Not to be forgotten is the necessity to assess the progress of the students in their work, the effectiveness of the design for teaching, and the extent to which the course is achieving the ends set for it. It is certain that special tests will need to be devised to do this job satisfactorily.

In order to supply necessary direction and support in mathematics for the program, at least one consultant will need to be available regularly. More desirable still would be a group of three consultants, with one as principal, to provide greater range and to insure that the program will not reflect too much the personality of one man. Under such a plan, the group of three consultants might meet twice a year, once near the beginning to see the program in motion, and once at the end to review the operation with the teaching staff. The principal consultant should be available before points of transition from one unit to another during the year, to assist the teaching staff with certain mathematical background and to plan with the staff the presentation of the unit to come.

A PROPOSED PROGRAM IN SOCIAL SCIENCE FOR THE GENERAL CURRICULUM

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Appendix B (5)

INTRODUCTION

It is not possible to adequately consider the handling of a general education program without raising some basic questions about the purposes and nature of education at the Junior College District.

The task is not conceived as one of establishing some sort of balance among fields and departments, rather, to find fundamental ingredients of education which may concern more than one department, just as one department may seek to supply more than one ingredient, thus at the level of general education, the student of biology needs to learn not simply biology but something of the meaning of scientific method and of man's dependence upon other forms of life. In these matters the concern of the teacher of a biological science will be shared by teachers in other scientific, and even non-scientific disciplines. This single illustration could, of course, be duplicated in many other fields.

The fact that a fundamental educational ingredient may be implied by several fields in no way insures that a student will get conscious possession of it. The hero of Moliere's Le Bourgeois Gentilhomme was greatly surprised to find that he had been speaking prose all his life. Some students might be equally surprised to discover that certain well-known scientists, artists, and political figures about whom they receive information in their various classes were contemporaries and were influenced by common problems. They might enjoy the opportunity to learn that teachers in different disciplines are really talking about similar issues, but by failing to understand issues which pervade many of the things they study, the students are not able fully to utilize what they have learned.

It is often said that good teachers in each discipline try to point out interdisciplinary relevance. There is evidence, however, that able students do graduate without a sense of the total meaning of the educational experience.

The determined effort made since the establishment of the Junior College District to develop an outstanding faculty has met with a great deal of success, but some of the courses given are still too scattered and fragmentary. The author feels that we must institutionalize processes which will give the work of strong teachers the greatest possible educational impact. One goal is to make it possible for teachers in related disciplines to become aware of what other teachers are doing, so that the gaps and undesirable overlapping can be eliminated. With the proper structure, all teachers can make a concentrated effort to meet educational needs which are now met only accidentally and only now and then. Student initiative must be encouraged, but it is no more reasonable to expect students to see how their courses fit together than it is to expect them to pick up basic mathematics or language by simply taking courses like history and chemistry in which those basics are used.

The work of cooperative planning is, of course, in no conflict whatever with eventual specialization. They are two poles of genuine education. It is not possible to pursue specialization at its highest levels without basic competence in areas of learning common to all specialties. It is a waste of time after specialization has begun for the specialist teacher -- even if he is competent to do so -- to double back to impart to the student skills and information he should be able to assume.

Assumptions about the contexts in which education takes place must also be made. The Junior College District accepts the responsibility of a tax-supported institution to serve the community which supports it. In addition to the personal development which they have a right to expect from the college, the students must be equipped, stimulated, and trained to give a greater return to society than they could give if they did not attend. The Junior College District has fully accepted its responsibility for contributing to the culture and economy of the region which surrounds it. It attempts its best to supply the area with skills which it needs. But it must be sure that it is meeting equally well the need for mature and responsible citizenship. Physicians, engineers, teachers, nurses, merchants, farmers, musicians, -- in short all who qualify themselves for any profession or vocation -- find themselves inextricably involved in community organizations and activities; in the duties, burdens, and pleasures of parenthood; in one or more leisure and recreational activities. "It is simple folly to assume that, because one is equipped within a narrow definition to earn a living or practice a profession, he is also equipped to manage ail these other matters wisely and well.

All of us know too well physicians who have attained admirable skills and knowledge within a special field but who are also intellectual snobs or windbags. The Babbitt-like businessman, clever and expert in business but bored and unhappy in his personal life, is a familiar spectacle. The expert engineer who can build magnificent bridges, highways, skyscrapers, automobiles, and planes, but who cannot successfully raise and educate his own children is much too common. Lawyers, farmers, and teachers who are cripplingly ignorant and bigoted outside their specialty can be noted in every community.

The failure to educate fully mature citizens might have been noted at any earlier period in any other society. But today both the need and the consequences of our failure are greater. Technology has given even some of the least-priviliged Americans the facilities to enjoy the riches of world culture. Shorter work weeks and greater longevity mean that a more significant proportion of our lives will be spent apart from our jobs. Enormous improvements in facilities for communication and travel coincide with the end of the colonial age. This happens also to be the age when the United States has had to assume the great responsibilities of political and military power. Even if, in the face of towering new enrollments, we should continue to educate the many as well as we have the few, this would not be good enough. We must give our students technical skills, but we must also help students to know what to do with them. They must use such skills to enrich their lives, not make life an assembly-line exercise in boredom and selfishness. And we must help our students to see the world-wide arena and the revolutionary intensity of the changes which will occur during their lifetime.

Pressure upon educational institutions becomes greater because of the apparent weakening of the influence of other social institutions during this time of our greatest need. The family has suffered a great deal from the social mobility of recent years. Many no longer look to churches for standards of moral value. If the schools do nothing toward supplying those human needs which go beyond information and skills alone, it would seem that for many these needs will not be met. Indoctrination is neither possible nor desirable in a pluralistic society like our own, but the College must do all it can to help the young people entrusted to it to develop some sense of total meaning to their educational experience and some ability to evaluate social policy and personal choices. In doing this, perhaps the College will strengthen those other institutions which should have at least an equal concern for social conservation and progress. It does us no good to bemoan the complexity of our task or to long for an age when the task of education was precise and narrow. As teachers, we must give to education itself some of the ingenuity and energy we have devoted to the parking problem and to research within our own specialties.

A SOCIAL SCIENCE PROGRAM

Critical thinking is one of the skills above all others which seems to be demanded by citizenship in a democratic society. The development of this critical ability is one of the primary goals of social science courses, and topics covered in general education courses should be organized in such a way to arouse this critical capacity.

The critical abilities can be broken down as follows:

1. To identify central issues. One of the basic skills in critical thinking is the ability to identify the central issue or main theme. The thesis may be perfectly clear; it may be hidden in a mass of verbiage; or it may be unstated. Until the student has identified the central issue, an analysis of the information cannot proceed on a sound basis:

2. To recognize underlying assumptions. An argument is always based upon certain assumptions. These assumptions may be generally accepted; they may be subject to grave doubt; or they may be absolutely untenable. The validity of many arguments depends upon the validity of the assumptions upon which they are based. An individual whose analysis does not go beyond the argument and into the assumptions will seldom arrive at a truly satisfactory insight into any social science issue.

3. To evaluate evidence or authority:

   A. To recognize stereotypes and cliches. Social science materials contain abundant illustration of faulty thinking in the form of stereotypes and cliches. Everyone is familiar with popular concepts of "the American clubwoman", "the tired businessman", "the absent-minded professor", "100 percent Americanism", and "the good old days". Many people who accept these at face value may be victimized by skillful propaganda techniques;

   B. To recognize bias and emotional factor in a presentation, the validity of any presentation should depend upon only such factors as the soundness of its reasoning and its factual basis. Many presentations, however, neglect reason and fact and substitute highly colored words or appeals to prejudice. This practice is frequently an admission that there is very little substance supporting the presentation. Since bias refers to opinions or attitudes based on prejudice and preconception rather than upon fact and reason, it bears no constant relation to truth and is as likely to be favorable as it is to be unfavorable. To detect bias is not to impute dishonesty, for many biases are unconscious. Recognizing bias, conscious or not, is the important thing. Awareness of the part one's own biases may play in the process of analysis and decision is also an important factor in critical thinking;

C. To distinguish between verifiable and inverifiable data. An early step in determining the verifiability of a proposition is the distinction between material which is of a factual or verifiable nature and that which is not. Sweeping generalization, value judgments, beliefs, and opinions are usually unverifiable. Material of a factual nature, on the other hand, is capable of proof or disproof, although frequently the data necessary to verify it may not be available.

D. To distinguish between relevant and non-relevant. To analyze social situations and problems adequately, an individual must be able to distinguish between those facts that have a bearing upon the solution and those that do not. One should ask, "Does this statement define, illustrate, or bear upon the problem?" This ability is less complex than the one which follows, because it does not require the individual to judge the degree of relevancy, but only to sort the aspects of a situation into those which do or do not have a bearing upon it.

E. To distinguish between essential and incidental. Those facts which are essential to a given situation are often confused with other facts which are present but are not a necessary part of that situation. Relevant data is not necessarily essential to an interpretation and may be of only secondary importance.

F. To recognize the adequacy of data. An appreciation of the connection between adequate facts and a valid conclusion is an essential ability in critical thinking. A judgment made on the basis of fragmentary evidence is likely to be of little value. In dealing with social issues, it is particularly important that judgments be based upon sufficient information. It is also important to be able to detect that significant data have been ignored or omitted. The omission may have been unintentional, but often the additional evidence has been purposely suppressed in order to strengthen the argument advanced. In many cases consideration of neglected material will destroy an argument completely;

G. To determine whether facts support a generalization. Facts may be relevant, essential, and adequate, but still not support a generalization. Furthermore, poorly selected facts occasionally contradict and seem to disprove a generalization. Also, in some cases the support furnished by one fact is stronger than that furnished by another;

H. To check consistency. All arguments must be checked for internal consistency. Identification of a major inconsistency may invalidate a presentation, and in any case an argument cannot be considered as a logical whole when it is based upon contradictory elements. If an argument withstands the test of internal consistency, it still must be submitted to a check for consistency with other known data. Having recognized the external consistency of inconsistency of the argument, one is ready to draw a conclusion;

4. To draw warranted conclusions. The drawing of a warranted conclusion involves making an inference. An inference is a truth or proposition drawn from another which is admitted or supposed to be true; a conclusion, a deduction. An individual needs to realize that certain facts not explicitly stated may be inferred as true or untrue. It is also important to realize the limitations of the inferences which can be made from given data. Many statements at first glance appear plausible, but if the inferences are properly drawn their meanings may change.

THE OBJECTIVES FOR THE SOCIAL SCIENCE PROGRAM MAY BE SUMMARIZED AS FOLLOWS:

1. To aid the student in understanding the major social forms of which he is a part, and in making satisfactory personal, social, and civic adjustments to our time;
2. To place emphasis on critical thinking based on observation and accumulation of data. No controversial issue, no matter how frought with emotion and bias should be buried or hushed up as too difficult to handle. To ignore such issues, we feel, performs a distinct disservice for the student. If any enlightenment is to come to a student on a particular issue, it will not be when that issue is buried in the dark cellars of an institution too cowardly to face it;
3. To achieve a real appreciation of human values and problems, their origin, development, and possible solution;
4. To achieve a meaningful appreciation and understanding of our own culture, our strengths, weaknesses, present problems, and possible future;
5. To achieve a significant understanding of the interdependence and vulnerability of all peoples in a shrunken world in an atomic age;
6. To think clearly and critically about social, political, and economic issues, on the basis of the best available information;
7. To enable students to cope with prejudice, bigotry, intolerance, narrow dogmatism, and provincialism, and to wear away these restrictive attitudes by attrition through the presentation of facts;

8. To be concerned with learnings basic to our democratic way of life;

9. To understand the principles and concepts common to the social sciences;

10. To enhance the student's ability to use certain skills, e.g., reading charts, graphs, statistics; critical thinking (weighing evidence); detection of propaganda; use of library aids;

11. To enhance the student's ability to solve problems, i.e., not to solve problems in the mathematical sense, but to be able to utilize means and methods of meeting issues and problems;

12. To encourage attitudes of competent citizenship in a democratic society: tolerance, delayed judgment, respect for the expert, recognition of individual responsibility, etc.;

13. To aid the student to become an informed citizen with knowledge about major trends, issues, and problems such as civil rights, automation, foreign affairs, consumer economics, law, economic growth, etc.

In order to attain the goals and objectives mentioned above, the following course outline is proposed. It should be kept in mind that each unit is approximate and flexible and adaptable to any emergencies which may arise. The time allotted to each unit is left up to the instructor's discretion.

1. Introduction - Should include an introduction to sociology as well as a discussion of the requirements and procedures, and the desired personal attitudes and inter-personal relations within the class.

2. Psychology and Social Psychology - This unit describes the relationship between psychology and sociology. It discusses various types of human behavior (neurosis, psychosis, mental

deficiency, and anti-social personalities), showing how the discipline and psychology explains these phenomena, as well as the socio-cultural causeations of human behavior. Some of the basic tenets of social psychology and social process and social change should be discussed, with some work on propaganda analysis.

3. Social Structure and Class System - Here the work of Warner, et al., should be freely drawn upon. Moreover, the class may be asked to make an analysis of its own community with regard to social structure and class system.

4. The Family - This unit presents the history of the human family, with its sub-human forerunners, together with the various forms of human marriage and human family. Other topics of discussion may be the functions of the family, the American family in transition, mate selection and success in marriage, and preparation for parenthood.

5. Culture - This is really a presentation of the basic concepts of physical and cultural anthropology. Among the topics are organic and super-organic evolution, early human cultures, and the origins of civilization, racial classification and comparisons.

6. Social Problems - Emphasis in this unit is placed on the general state of our society with reference to its many social problems. Due to the fact that there will not be enough time to cover all the problems, selection should be made for formal presentation of such topics as crime and delinquency, inter-group relations and prejudice, world population, poverty, alcohol, gambling, and narcotics. Other problems should be brought out by students as a result of their research and oral reports in class.

7. Religion - This unit should be handled only when a background of sociological and anthropological knowledge have been accumulated. The beliefs of the major religions of the world should

be presented, along with the status of religion in our own society. Both the sociology and psychology of religion should be discussed freely and frankly from an academic as opposed to a sectarian point of view.

8. Social Reconstruction -- This unit should be concerned with a brief history of utopian thought, current ideas concerning social and economic planning and reconstruction, and an appraisal of past and present plans and theories.

9. Mass Society - This unit should deal with aspects of urbanization, mass production, consumer behavior, economic growth, the basic features of the legal structure in addition to specific issues such as automation, foreign affairs, civil rights, communism in theory and practice, etc.

A PLAN OF OPERATION

Social Science courses should be designed to interest and excite the student. Faculty members will be given wide latitude in selecting material and arranging the sequence of experiences. Major emphasis will be placed on the meaningfulness and stimulating effects of the subject matter. Basic skills will be offered as incidental to participation in the experience rather than as goals in themselves. The new curriculum which should be developed for students in the program is:

1. The readings for the Social Science courses will be chosen partly to help students to learn the mode of inquiry of the social sciences. In each course a number of lessons will be devoted primarily to the mode of inquiry with subject knowledge on those days receiving a secondary emphasis. In addition, teachers will help to develop the mode of inquiry as a secondary emphasis on those days when subject emphases are paramount.

2. The materials developed will be designed for inductive teaching. The courses will consist of readings, each with an

introduction, a few study questions, and the article itself. Some of the articles will be from source materials and texts, others will be obtained from current news media and professional journals (reprints). The audio-visual components of the courses will also be designed with inductive teaching in mind. In addition, emphasis will be placed on class discussion, reports, and field experiences. From all these materials students will be expected to develop their own conclusions and to link one generalization to another. Student initiative and participation will be highly encouraged and the instructor is to act as a democratic rather than an authoritarian leader of the group. Abandoning the sterile textbook in favor of material from which students can discover insights for themselves will mark a significant departure from most teaching procedures on the under-graduate level. Moreover, the democratic classroom atmosphere will be both conducive and encouraging to scholarship.

3. The material within each course and from one course to the next will be organized sequentially. Each major subject and skill objective will be ordered to give adequate opportunity for reinforcement of learning and to permit learning to build upon what has gone before.

4. Materials will rely heavily on audio-visual aids which are to be designed specifically for particular tasks within particular courses. A reservoir of audio-visual aids - tapes, slides transparencies, film-strips, and photo-essays - will be explicated. These materials will engage the full perceptual apparatus of the student. They will also provide a welcome change of pace to both teacher and student.

5. Teachers will be given the opportunity to develop independent projects for their students in the form of class project, research paper and "learning by doing".

6. There will be two types of evaluation. The first will consist of written weekly tests within each course and alternative objective tests every other week. The majority of the questions will be designed specifically to assist the teacher to measure student mastery of a particular objective rather than to rank the students. The other sort of evaluation will attempt to assess the achievement on a comparative basis among the various classes.

A team of at least three consultants will be needed to work in conjunction with Social Science instructors from the Junior College District to properly develop the program. Ideally, the consultants should represent varied backgrounds from the areas of history, political science, sociology and psychology. The function of their consultants will be to participate in program development and evaluation. Assistance should also be provided in the selection and possible construction of instructional aids.

APPENDIX C

A PROPOSED PROGRAM IN COMMUNITY HUMAN RELATIONS FOR THE GENERAL CURRICULUM

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Appendix C (I)

INTRODUCTION

I 1. The educationally deprived student, whatever the cause, tends to be frustrated, easily discouraged, conditioned to expect failure and, in general, has an unhealthy attitude toward himself and toward education.

2. This student tends to have little insight into his own worth, little knowledge of his community and of his privileges and responsibilities as a member of his immediate and the larger community.

   A. Research shows that members of deprived groups and especially those of the Negro group:

      1. tend to be unaware of many of the agencies to which they can turn for assistance in alleviating their problems;

      2. when such resources are known to them tend to resist using such services either through fear, lack of know-how, not wanting to be considered "poor" or genuine antagonism to anything that bears an "authority" stamp;

      3. tend, in some cases, to feel the hopelessness of the situation engendered by hearsay or actual experience in not obtaining help when requested;

   B. Based on the hypothesis that these services can aid and have much to offer the client if he:

      1. knows what agency can aid him in the resolution of his problem;

      2. knows how to apply and take advantage of the service;

3. has a positive attitude toward the services and himself;

there appears to be value in the concept of interaction between the Junior College, the assisting agency and the client.

With this in mind I would propose these objectives for this facet of the Junior College program for the educationally deprived:

II Objectives in staffing the program:

1. Instructors and counselors for this work with the educationally deprived should be selected and screened carefully in terms of:

    A. their attitudes, biases and prejudices toward those different from themselves - the minority and underprivileged groups in particular;

    B. their knowledge of the needs and general lacks of this group;

    C. their motivations in working with this particular group;

    D. their academic training and skill.

2. Close and continuing communication channels should be established between those available agencies and the Junior College staff:

    A. for the purpose of exploring ways the services of each can be mutually shared;

    B. making mutual needs known;

    C. establishing and continuing a good working relationship.

3. Counselors, in particular, and instructors should be thoroughly aware of the available services, sensitive to the needs of the students and be willing to bring the two together when they recognize as counselors or instructors that these needs can better be met by a service outside their own sphere of influence.

4. These services, both in terms of knowledge of their existence, and means of their utilization should be a serious consideration especially for that group of students whose Junior College education will be terminal or those who will drop out before its completion.

A HUMAN RELATIONS PROGRAM

I Some procedures indicated for approaching these goals:

1. In-service training for staff:

    A. Since the instructional staff is basic to the success of any such program, it is suggested that there be conducted a Workshop each semester for the purpose of:

        1. examining attitudes in a human relations framework;

        2. exploring the needs and characteristics of the educationally deprived with emphasis on the causes;

        3. gaining some experiences in group process as a guidance and teaching tool;

        4. looking at the testing program as related to the educationally disadvantaged.

    B. Provision be made for representatives of the various agencies to confer with this group for informational purposes to establish rapport, and to set up an on-going stable relationship.

C. A directory, up-to-date and functional, be prepared for purposes of quick reference to cooperating agencies.

II. The student program and its objectives:

Assuming that for the largest percent of these students this will be their terminal education; that there will be a percent of potential drop-outs and a small percent of college-bound students it should be the objectives of the project to:

1. Utilize every means of making the college experience new, exciting and sufficiently rewarding to the student immediately so that the holding power of the College will be effective and desired goals can be accomplished.

2. Since research shows that mastery of basic skills (reading, writing and arithmetic) through programmed learning, remedial reading, etc., does not automatically transfer its application to the content subjects, instructors and counselors should be allotted time to devote to planned programs for teaching study skills and help the student make these applications.

3. Provide self-rewarding experiences so that the student will develop a healthy self-concept, recognizing and accepting his limitations and his assets and utilizing them to his potential.

4. Provide academic, social and cultural experiences that will improve his attitude toward education and increase his realization of the need for it in general and specifically pique his curiosity and creativity.

5. Detect the potentially college bound student so that his work may be directed in the proper channel. Detect the student who for some reason appears not to be sufficiently capable of completing Junior College but would benefit by vocational training. Detect the student who, for some reason, does not appear to benefit from Junior College but would benefit from immediate full employment and/or on the job training.

When these students are recognized, bring to bear the cooperating forces of the Junior College and the community agencies to provide the necessary means of dealing with these three categories. It is to be assumed that the remaining students of this group who will complete Junior College will also have every benefit from this Junior College-community inter-action.

6. The Junior College Staff should be aware of the student who, for any reason, (lack of ability, motivation or interest) appears to be adjusting poorly to the academic setting. If, when all the evidence is gathered, it appears that the student should be guided into a vocational program, the staff should be responsible for establishing the relationship between the vocational program and the student, and assisting him in his placement.

7. It would appear that a percentage of the total group will be found to be early drop-outs after one semester. Every possible effort should be made to assist these students to select a suitable area of employment, and assist them in finding this employment, utilizing all of the available community agencies.

8. For two reasons, each student should be followed up by means of periodic interviews with him and his instructor or employer for at least three years:

   A. As one means of evaluating the success of the program;

   B. As a means of keeping contact with the ex-student in adjusting to this new phase of his life, assisting him in becoming a useful employee, and motivating him whenever possible to further his personal growth by taking evening or part-time courses in the areas most useful to him.

9. Each student should have opportunity to utilize the service of, and to become acquainted with, the representatives of the cooperating agencies and should be encouraged to do so.

10. The cooperation of psychiatric agencies in the community should be achieved so that the small percent of emotionally disturbed students can get immediate help without being put on a long waiting list.

A PLAN OF OPERATION

I Orientation .

To help the new student (particularly since this is a community college) gain a feeling of belonging, to see this as a totally new educational experience, it would be of value to get these students together for a week-end where they could live together, hold group meetings, get to know the faculty and socialize. Hopefully this would develop a sense of self-importance and a new view of education. This orientation to take place the week before the beginning of the semester.

II Assuming that, for many of the students in this program, this will be their terminal education:

A. they will be seeking vocational help;

B. they will be seeking employment;

C. they will be raising families who can benefit from these services;

D. they need to be aware of these services and how to use them;

E. through those agencies in which they can become volunteers, trainees, members of recreational groups, they will learn group skills, satisfaction from services given, a sense of self-worth.

For these reasons opportunities should be given:

1. to learn about these services through counseling, meeting with representatives of the services, and ways of utilizing them by means of;

A. individual and group counseling;

B. assembly programs;

C. projects in economics, sociology and other disciplines for the purpose of learning their own community;

D. opportunities for and encouragement to join organized youth, recreation and service groups either as a part of the campus extra-curricular activity or as a personal project. In some cases this will have to be subsidized.

Research shows that the child of the lower socio-economic group has tended not to belong to constructive organized groups such as the Scouts, Y's, etc., and therefore, is lacking in group skills including cooperative skills. Often this is extended to lack of skill in swimming, and other recreational activities common to other children.

E. exploration of all job opportunities for purposes of motivation, information, choice making by using community agencies, business, management and labor;

F. whenever possible there should be much opportunity for group work for the purpose of exploring their needs and problems, finding possible resolution of these problems, and developing communication skills;

G. as many as possible experiences that will fill in the cultural lacks of the students,

- group dining

- assistance in building conventional behavior (manners) that is acceptable to the main cultural stream, i.e., appropriate dress, etc.

- the economics of buying

- spending the family money

- visits to musems, art galleries, planetarium, etc., as part of the regular school program.

H. a subsidy provided to afford attendance at the theatre, the symphony, etc;

I. when it is certain that these students will leave the Junior College, some experience and training in conducting interviews, filling out forms, etc., should be given;

J. counselors and instructors should be on the alert for symptoms of emotional and psychological disturbances and be ready to help the student make the contact with the cooperating agency which will provide help when it is beyond the skill of the counselor;

K. provision should be made for in-service training of staff in workshops: conferences with advisory personnel; visits to agencies; conferences where there are similar areas of interest in and out of the city;

L. data should be kept and evaluation of the program should take place periodically to discover strengths and weaknesses. This will require for some personnel release time or lighter class loads.

III Consulting Assistance

To implement this program, plans should be made to retain a human relations consultant to work with staff members in changing attitudes and improving understanding of the need for close community support for the program. A technical consultant on community - junior college instruction with sufficient funds could carry out an extensive program of contacting business, labor, public school, and then community agencies. Plans should be made for a staff to conduct the periodic workshops that would be required. There would also be a requirement for consultants who were specialists in various aspects of community relations to work with selected staff members on a one-time basis only. Finally, junior college staff members would require release time to participate in their activities.

A PROPOSED PROGRAM IN COUNSELING FOR THE GENERAL CURRICULUM

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Appendix C (2)

INTRODUCTION

The broad general purpose of the counseling program is to help each student, in collaboration with his parents, teachers, college administrators, and relevant community organizations, to identify his developing needs and assets and make certain that he is placed in whichever program best serves his needs and utilizes his assets:

A. Placement in another program offered by The Junior College District, or transfer to another educational institution;

B. Placement in a training program sponsored by an agency outside the jurisdiction of The Junior College District, or,

C. Placement directly in a job.

In more specific terms the counseling program may be expected to help the student:

A. Develop a positive self-image;

B. Improve study habits:

C. Arrive at a decision concerning career or vocational choice that is satisfactory to him;

D. Develop the kinds of attitudes toward school, home, and community that will help to insure his growth.

The nature of the program, with its focus on careful placement, will involve a redefinition of drop-out and failure, so that no student will experience failure or simply drop out.

A COUNSELING PROGRAM

I. Testing service which will enable counselors and students to begin with a basic fund of information about the student. It is essential that each student know his strengths, weaknesses, assets and liabilities, his values, feelings and attitudes so that he can participate in the planning of his future realistically.

2. Personal interviews and consultative services regularly (as well as when an urgent need may arise) throughout the year. This service will be geared to the identification of personal, academic, or family problems and to decision making on part of the student with the assistance of the counselor.

3. Group counseling to supplement the individual sessions. These sessions will be used to test out the realities of situations, to identify general problems or difficulties in the over-all program (including curriculum), clarify issues, release tension, create group spirit, develop skill in verbal expression of ideas and feelings, and formulating useful recommendations concerning any aspect of the total program to the administration.

4. Joint consultative sessions with teachers as needed to iron out academic problems. Staff will meet periodically to evaluate the progress of each student.

5. Joint consultative sessions with college administrators as needed to iron out any difficulties related to the student's status.

6. Establishment of rapport with parents of students to clear up misunderstandings about the program and work through any problems involving parents. This may be done through visits by a social worker and/or invitations to parents to come to the college.

7. Special training sessions in how to study, including periods of supervised study.

8. Vocational and career guidance.

9. Job Placement.

10. Drawing on Community resources on behalf of the student to assist him in solving special problems and job placement, and educating him to the availability of community resources which he can still use after leaving school.

(NOTE: Items 7,8,9, and 10 are detailed in the Shea report. They are included here because it will be the counseling staff that handles that part of the program.)

A PLAN OF ORIENTATION

A. Pre-service and In-service training for Staff

1. Acquaintance with the information as categorized below will constitute the Pre-service training for the staff:

   A. The psychological characteristics of the different of educationally disadvantaged students and how these characteristics were developed;

   B. Motivation to learn and how this is related to the interaction of personality characteristics of the disadvantaged student and his environment;

   C. What constitutes a helping relationship to the disadvantaged student, including information on typical pitfalls encountered by counselors, teachers, and administrators in working with such students;

   D. Group dynamics and how group counseling can be used to assist the disadvantaged student;

   E. Interviewing techniques and psychological principles involved in establishing rapport.

2. Testing Services:

   A. Discussion of personality tests and their use in counseling;

   B. Aptitude Tests and their use in counseling;

   C. Achievement Tests and IQ tests: evaluation and utilization;

   D. Vocational interest tests; interpretation and application;

3. Working with Parents and coordination of efforts with Social Worker (s);

4. In-service training will consist of the exploration of specific problems that have arisen, workshops on special materials provided by the consultant, and attending lectures and discussions held by visiting speakers throughout the year.

B. Orientation for Students:

1. General orientation to the program (See Dr. Shea's report on this item);

2. Two to three days of testing before classes begin (this will probably be done at the same time as testing for academic placement is carried out).

The Pre-service training for the staff will take a period of seven days (including the 2-day period specified in the Shea report). She recommends a two-day live-in workshop period. It would probably be too costly to extend this to seven days, so the 5-day period for orientation in the counseling program need not be carried out on a "live-in" basis.

The testing program, both psychological, aptitude, vocational interest, etc., for the counseling program and the testing for academic placement will take three days at least. This could be followed by the week-end "live-together" part of the orientation outlined by Dr. Shea. (See Page 5 of her report.)

C. Counsulting assistance:

It is envisioned that the counseling consultant would be needed both at the pre-service training sessions and at subsequent period intervals during the period when the program was in operation. Specific consultants with relevant specialties would also be required at the rate of, perhaps, four a year. There would be a vital need for the full time employment of at least one social worker to devote full time to providing counselors with information concerning home environment of the students and to carry the counseling program into the community.

In addition there would need to be an expanded testing program with specialists available for unusual applications.

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APPENDIX D

RESEARCH AND EVALUATION IN THE GENERAL CURRICULUM PROGRAM

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Appendix D

INTRODUCTION

A major problem in designing a large scale experiment in an actual classroom situation such as the General Curriculum proposed for the Junior College District is to establish reliable criteria for evaluating the success of the program. The classroom obviously lacks many of the controls desirable under ideal experimental conditions; and yet, ultimately, research in the classroom is necessary in order to provide a unified, long-term test of the many various hypotheses which enter into a radical instructional method such as the General Curriculum.

The most effective instructional innovation is only effective experimentally to the extent that the outcomes of instruction are adequately and accurately measured. But adequate evaluation of instruction remains one of the most elusive goals in the field of education. First of all, the instructional program involves the whole individual over a long period of time, and the behavioral outcomes extend into a variety of areas. Secondly, none of these areas, such as academic achievement, personality development, or attitude change, lend themselves easily to measurement. They are underlying variables which must be measured inferentially from other overt behaviors, such as test performance.

With these problems in mind, the educational literature of recent years was reviewed for the purpose of seeking out relevant research on the evaluation of experimental instructional methods.

Unfortunately, this is an area which seems to have suffered very little scrutiny of an empirical nature. However, several references were found which discussed specific problems of evaluation. These emphasize the errors and pitfalls which may obscure the effects of an otherwise successful program.

Measurement Geared To Objectives:

Several writers have mentioned the need for developing specialized instruments for measuring academic progress, rather than using standardized achievement tests.This is particularly relevant to the situation at the Junior College District since the stated aims of the General Curriculum are not so much actual changes in quantity of knowledge but broader changes in attitudes toward the learning situation. Kowitz and Hausdorf (1964) report on a large-scale research project in New York State in which $200,000 was appropriated by the state legislature to support research in improving public school instruction, specifically in the areas of mathematics, science, gifted students, English, and foreign language. This article cites the general failure of the program to produce satisfactory results, even though all projects were carefully planned to adhere to experimentally adequate conditions. The authors attribute the shortcomings of the program not to failures in the experimental programs, but to failures in evaluation. Evaluating instruments used were not relevant to the behavioral objectives of the courses taught.

Similarly, Parkinson (1962) states that any experiment designed to compare instructional programs must have a test which is suitable for testing the hypothesis under study, and must have chosen conditions which truly represent the differences sought. An example is cited in which mathematics teaching in New Zealand and the United States was compared, which failed to take into account the different educational goals of the programs.

Thompson (1964) elaborates on the need for objective criteria for success, particularly for the culturally disadvantaged student. Like the authors cited above, this writer urges that criteria be directly related to the assessed needs of the students plus the specific content material of the course. Sommerfield (1965) reiterates this philosophy. McDonald (1964) as well cites inappropriate norms as a failing in evaluation of instructional effectiveness.

Experimental Control as it Affects Evaluation:

Other problems in evaluation center on such things as control of Hawthorne effect, and regression toward the mean, and establishing a proper control group (McDonald, 1964). DuBois (1962) suggests that both individual standing within the larger groups and individual progress be used as criteria. Thompson (1964) adds that a long term evaluation of progress is important.

Kowitz and Hausdorf (1964) of the New York project stressed the importance of maintaining strict experimental control of relevant experimental conditions. They pointed out that when unforeseen difficulties arose during projects, conflicts were settled by arbitrary administrative decision, which frequently introduced other factors into the experimental situation which so clouded the results that they could not be evaluated. For example, a scheduling conflict was resolved by keeping the experimental class thirty minutes after regular school hours, which engendered such hostility among both students and teachers that the value of the experiment had to remain unassessed.

Broadening the Range of Evaluation:

Thompson (1964) mentions, in his discussion of evaluation of educational programs designed for the culturally disadvantaged, the need for criteria other than the purely academic. Personality measures are suggested as an important adjunct to academic evaluation. Taba and Sawin (1962) go even further, suggesting measures of creativity, concept formation, conformity, autonomy, skills, habits, and social skills. They urge that the students' background be taken into account in evaluation of these factors. As mentioned previously, the particular objectives of the General Curriculum require the use of forms of evaluation other than the purely academic.

A Non-Test Criterion for Evaluation:

All of the above discussions have been concerned with evaluation by the traditional criteria of standardized and teacher-made tests. One article (Siegel, *et al.*, 1963) presents an experimental effort to develop *a* different criterion for evaluation in educational research, one which seeks specifically to determine the immediate effects of the events within the classroom. This criterion consists of a measure of students' thoughts during class.

The authors note that final examinations are contaminated as a criterion because, for reasons of absence during the course, most subjects will not have received the entire treatment, and each may have missed different parts. They state further that a single measure at the end of the course lacks sensitivity to the cumulative effects of the course.

The proposed technique attempts to simulate students' thoughts during the class by asking them to recall and report these during a video-tape playback immediately after the class.

This immediate stimulated recall yielded written responses from the entire class which were then scored for relevance of thinking. Responses were scored by independent judges, and scoring was found to be fairly reliable.

A correlation of .61 was found between relevance of thinking scores and an achievement test geared to course content and controlled for prior knowledge.

Krauskopf, C. J. (1963) reports in a validation study of the above technique, that the written mode of response is satisfactory compared with oral response through interview, indicating that large group testing is feasible.

This technique shows promise in evaluating the immediate effects of a learning experience, but its utility at this time, considering the expense of the procedure and time involved, would appear to be limited.*

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*Additional research dealing with the education of low achievers was reviewed in *A Two-Year Report on the Experimental Freshman Year Program* which was distributed to each participant in the conference. The Author gratefully acknowledges the assistance of Mrs. Jean Schanen in the Educational Research Bureau in the preparation of this review of literature.

A PROGRAM OF RESEARCH AND EVALUATION

It is necessary to determine the research questions before a design can be formulated. Furthermore, the specific research questions for the evaluation of the General Curriculum program cannot be specified until "what" is to be evaluated is determined. The problem of specifying research questions is further complicated as a result of the conditions specified for conducting the General Curriculum program, which dictates that the research questions to be asked are necessarily restrictive.

Nevertheless, a sample research question is stated for demonstration purposes. One might ask a research question like this: "Do low achieving students who complete the General Curriculum program improve significantly on their post-test scores as compared with their pre-test scores?"

A few hypothetical operational definitions are needed here to make this question even reasonably clear. The pre and post scores might be standardized tests (hopefully designed to test the behavioral objectives specified for each course of study) or a teacher-made test designed to test specific behavioral objectives for each course (and perhaps units within a course).

If the pre- and post-tests were based on each individual course in the program, then it would be necessary to specify several specific research questions, one for each course studied. This latter procedure would serve to provide an opportunity for a course-by-course and/or unit-by-unit evaluation of the program. Among the criterion measures which could be used in the course-by-course or unit-by-unit analysis are acquisition time(time required to satisfy behavioral objectives demonstrated). It also would be possible with these procedures to give a pre-test and post-test based on behavioral objectives in each course and to look at the total group in each class, at all classes in each course, and at each individual student's progress in the course.

A Sample Pre-Experimental Design

The design specified here to test the question stated above is not an experimental design; it is a pre-experimental design. It is also a weak design and has a good many possible sources of invalidity (Campbell and Stanley, 1963; Karlinger, 1964). The design is listed here because it is probably a typical example of the type of design which will be used on this study, if restrictions exist as to the availability of control groups, and the assignment of students randomly to control and experimental groups.

STEP #1	STEP #2	STEP #3
Pre-Test	Treatment or Effect To Be Measured	Post-Test
(e.g., standardized test or teacher-made test)	(General Curriculum Program)	(e.g., standardized test or teacher-made test)

The decisions made concerning the remainder of the program necessarily control the research questions which can be asked and, consequently, also control the type and quality of the design for the study, the conclusions of the study, and the validity of the study. The sources of invalidity for action research types of design and the difficulty in interpreting the effects of the treatment in this type of design and study can be found in various sources (Campbell & Stanley, 1963; Kerlinger, 1964; Federer, 1963; Cochran & Cox, 1964).

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A PLAN OF OPERATION

The responsibilities of a research consultant are arranged chronologically in terms of the following suggested time table:

Planning Phase (September, 1966, to January, 1967)

During this period, the research consultant would meet with the project director, instructors, and interested administrators to discuss such matters as possible research questions which could be asked and possible research designs which could be used under a variety of conditions. The research consultant could also assist in recommending qualified research oriented staff for the project and recommending any additional research consultants (e.g., computer technologist) to be considered for the project. The research consultant on request also would devote a period of time to assisting team curriculum consultants as needed.

Program and Material Development Phase (January, 1967, to August 1968)

The research consultant would work with the project director, teaching team curriculum consultants, and other consultants on the project to determine the types of realistic research questions which could be formulated. The research questions would be formulated during this period, and the consequences of the research questions and the possible outcomes or end product of answering the research questions would be discussed with interested persons.

Several types of designs to answer the research questions and the implications of using the various designs would be considered with the project director, teachers and other consultants. A research design would be recommended to answer the research question which would incorporate the procedures to be used in the study (September, 1968, to August, 1969).

Conducting and Evaluating the Program Phase (September, 1968, to August, 1969)

In this phase of the study the research consultant would talk with the project director, teachers, and other consultants regarding problems encountered in executing the prescribed procedures. The consultant would also help in such matters as setting up data tabulating procedures, suggesting a time-table for analyzing the data, making recommendations regarding the analysis of the data based on a previously prescribed data analysis program, and making suggestions on the writing of the report for the study.

Follow-Up Study Phase (September, 1969, to August, 1970)

During this phase the research consultant would make suggestions regarding problems encountered in the follow-up study procedures. He would also read and make recommendations on the final report. If appropriate, he would recommend publication of the research report findings in the professional literature.

APPENDIX E

THE GENERAL CURRICULUM PROGRAM

A Description of the Experimental Pilot Program
Concerning The Educationally Disadvantaged

General Curriculum Team

- Larry Cornwell
  - Programmed Methods Learning Laboratory
- H. Michael Delgado
  - Science
- Clare Heyne
  - Sociology
- Thomas Iverson
  - Mathematics
- Joel Margulis
  - Humanities
- Henry Mellone
  - Economics
- Marion Nesset
  - Humanities
- Betty Pollard
  - Programmed Materials Learning Laboratory
- Alice Thelen
  - Counseling
- Fredda Witherspoon
  - Counseling

APPENDIX E

I Objectives of the Program

The General Curriculum Program being initiated in the Junior College District during the fall semester, 1965, has three major aspects, designed to meet the following stated objectives:

1. To provide an opportunity for students whose academic performance on standardized tests and in previous high school courses makes them high risk students to raise their level of achievement in basic skills to a point that will enable them to enter and succeed in college level programs.
2. To help the students make a realistic evaluation of their educational and vocational goals and to effect an appropriate placement of those students in programs commensurate with their abilities and interests.
3. To acquaint the student with the social concepts and intellectual content which other college students come in contact with during their college experience, in a non-threatening atmosphere.

II Selection Criteria and Profile Evaluation

As a part of the admissions policy of The Junior College District, high school graduation or the G. E. D. Equivalency is required of all students regardless of the program they enter. During the pre-registration counseling session all students complete the School and College Aptitude Test (SCAT) and the Missouri English College Test.

To be eligible for the General Curriculum Program, a student must enroll on a full time basis. If he stands in the lower one-half of his high school graduating class and scores at or below the 10th percentile on the SCAT total, University of Missouri Norms, he is required to enroll in the program. Those students who were in the lower half of their high school graduating class, and who scored between the 10th and 20th percentile on SCAT were encouraged to enroll in the program, but were not required to do so. (A copy of the notices sent to each group of students is enclosed.)

To develop a comprehensive profile of the student population in the experimental pilot program, the following battery of instruments was administered:

In the achievement area the Sequential Tests of Education Progress Battery was used as the basic instrument. The Wide Range Achievement Test was administered, in part, to identify the level of arithmetic achievement, the SRA Reading for Understanding Test to identify the reading level, and the English 2600 Test for the same purpose in that area.

The Kuder Preference Schedule and the Edwards Personal Preference Schedule were administered to provide data in the interest and attitude areas.

The Allport-Vernon-Lindsay Study of Values, and the Brown-Holtzman Survey of Study Habits and Attitudes were administered for their special areas of concern.

The General Aptitude Test Battery was given for its value in identifying the occupational patterns which the student possessed.

A questionnaire was designed to provide data on the student's background, goals, and activities. Along with anecdotal records, it completed the entry profile of each student who enrolled in the program.

III Description of the Student Population Enrolled in the Program

1. Number of students originally enrolled 136

2. Sex and Race

Female 51 - White 11, Negro 40

Male 85 - White 67, Negro 18

TOTAL - White 78, Negro 58

3. SCAT Total Score Distribution (University of Missouri Norms)

0 - 9 - 116
10 - 19 - 19
20 - 29 - 7
30 - 39 - 1
40 - 49 - 0
50 - 59 - 0
60 - 69 - 0
70 - 79 - 0
80 - 89 - 0
90 - 99 - 0

01 - 39
02 - 13
03 - 12
04 - 16
05 - 9
06 - 5
07 - 5
08 - 7
09 - 0

10 - 7
12 - 4
14 - 3
16 - 4
18 - 1
21 - 4
24 - 1
27 - 2
34 - 1

4. Reading Level Scores (RFU -SRA Reading Test)

Grade Level	Number of Students
10th	1
9th	5
8th	19
7th	49
6th	44
5th	14
4th	3
3rd	1
	136

5. Number of Hours of Employment

Hours Employed Per Week	Number of Students
Not employed	51
1 - 9 hours	9
10 - 19 hours	14
20 - 29 hours	29
30 - 39 hours	10
40 + hours	20

IV. Description of the Program

To accomplish its objectives, the program consisted, first, of a programmed materials learning laboratory, with a full-time coordinator assigned to each group of students, to test, advise, and evaluate the students' progress in the learning laboratory. Students attended on an individually scheduled and programmed basis, arrived at after standardized placement examinations. The responsibility for progress toward a self-determined level of achievement in the basic skills area, was assigned to the student. Upon achievement of a designated level, in the basic skills area, the student was assured of admittance to the program, for which this level of achievement has qualified him. The student may move as rapidly or as slowly as he wishes in this phase of the program and may continue to progress toward his expressed goal, even after completion of the one year formal instructional phase of the curriculum. In this way the program is attempting to implement a truly continuing education concept.

Concurrent with the learning laboratory, a one year general education program consisting of ten hours of instruction, in Contemporary English, Modern Basic Science or Modern Basic Math, Consumer Economics or Basic Sociology, and Music and Art Appreciation is offered each of two semesters. The courses are planned and taught by subject matter specialists working closely in teams to develop a unifying theme or to develop relationships between the subject areas wherever possible. The courses are designed to provide a stimulating educational experience at the college level of activity for students who would otherwise experience only frustration and dismal failure. Since no grades are assigned by the instructors, and the courses are credit free, non-traditional approaches to the subject matter have been utilized, including audio-visual materials, team teaching, community resources, etc.

The third aspect of the program seeks involvement in depth of counselors in both formal and informal instructional situations. Since one of the major objectives of the program involves placement, the students retention in the program ceases to be a major criterion. A smooth transition of a student from the General Curriculum, to one of the Junior College's transfer or technical programs, to an existing community occupation training program, or directly into a suitable occupation, is considered as a successful attainment of the program's objective.

MODERN BASIC SCIENCE

H. Michael Delgado

INTRODUCTION

The biological topics chosen from the program are designed primarily to better inform the individual of his biological self, his inherent limits and capabilities, and the biological compatibility with his environment.

The manner of presentation will represent a slight departure from the traditional concepts of teaching biology in that it will emphasize an appreciation of the general concepts of man and his environment rather than the technical aspects of biology.

The basic guiding philosophy centers on the theory that the better a person understands himself the more adaptable and rational he will be to the changing conditions so characteristic of our times.

To supplement the classroom activities, communications with the following agencies have been established:

1. Missouri Botanical Gardens
2. Museum of Science and Natural History
3. The McDonnell Planetarium
4. St. Louis Zoological Gardens

Further attempts will be made to locate areas or activities which will be conducive to learning and supporting this area of study.

1. General Course Objective:

   The visualization of the individuals biological self as a member of an interesting, highly complex society.

2. Specific Topic Objectives:

a. Genetics and Eugenics:
To become aware of the implications genetics has on the development of the individuals physical and psychological self.

b. Reproduction and Development:
To familiarize the student with the essential mechanics involved in the formation of a living being and the uniqueness of this phenomenon.

c. Parasitology:
To familiarize the student with the existing relationship of man and pathogenic organisms and how they influence individual behavior.

d. Ecology:
To expose via student to the physical environmental factors which play an active role in his development as a member of the community.

e. Cytology:
To present a general consideration of the basic unit of life; the cell; its forms and structure; its physical make-up of man.

f. Organic Evolution:
An exploration into the factors contributing to change among living and past organisms with special emphasis on the evolution of man.

COURSE OUTLINE

GENETICS & EUGENICS

I. Genetics defined:

    a. Objectives
    b. Scope
    c. Eugenics – its role in directing human lives

2. History:

    a. Theories (BC)
    b. Medieval Superstitions
    c. Mendel's discovery
    d. Modern day misconceptions

3. Transmission of Hereditary Factors:

    a. What is a factor, trait; characteristic
    b. The gene as the particulate unit of inheritance
    c. Genes on the chromosomes
    d. Specificity of chromosomes and their numbers
    e. Effects of abnormal chromosome numbers
        (1) Klinefeltors Syndrome
        (2) Downs Syndrome
        (3) Turner Syndrome

4. Mechanics of Transmission:

    a. ~~Meiosis~~ mitosis – normal cell division
    b. Meiosis – the secret to variation and sexual reproduction

5. Independent Segregation and Assortment of Genes:

    a. Via the single chromosome
    b. Via crossing over
    c. Assortment of geno- and phenotypes

6. Sex Determination:

    a. Role of the female
    b. Role of the male
    c. Expected and observed ratios of male and females

7. Sex-linked Inheritance:
    - a. Traits inherited by sex
    - b. Other sex-linked traits
    - c. Sex-limited inheritance

8. Parenthood and Heredity:
    - a. Genetic Counseling
    - b. Twins identical vs. fraternal
    - c. Inherited diseases
    - d. Dwarfism

9. Inheritance of Acquired Characteristics:
    - a. Pre-genetic concepts
    - b. Lamarckism
    - c. Evidence against theory
    - d. Clarification of theory

10. Polygenic Inheritance:
    - a. Many genes influencing a trait
    - b. Inheritance of pigmentation
    - c. Mechanism of transfer

11. Multiple Gene Inheritance:
    - a. More than one possible gene of a locus
    - b. Characteristics
    - c. ABO blood groups

REPRODUCTION AND DEVELOPMENT

1. Definitions:
    - a. Reproduction
    - b. Development
    - c. Universal phenomenon

2. Reproductive Organs - Male:
    a. Form and structure
    b. Function
    c. Spermatogenesis - Sperm production
    d. The male germ cell

3. Reproductive Organs - Female:
    a. Form and structure
    b. Function
    c. Ocgenesis - egg production
    d. The female germ cell

4. Fertilization:
    a. Characteristics
    b. Mechanics
    c. Twin formation (identical and fraternal)

5. Implantation:
    a. Characteristics
    b. Significance
    c. Influencing factors

6. Early Embryonic Development :
    a. Zygote
    b. Cleavage
    c. Differentiation

7. Fetal Stage:

8. Parturition:
    a. Characteristics
    b. Physiological changes in female
    c. Afterbirth
    d. Significance of placenta

PARASITOLOGY

1. Parasitology Defined:
   - a. Objectives
   - b. Scope

2. Kinds of Symbiotic Relationships:
   - a. Mutualism
   - b. Commensalism
   - c. Parasitism

3. Bacterial Parasites:
   - a. Descriptions
   - b. Life cycles
   - c. Pathogenic effects
   - d. Precautions

4. Viral Parasites:
   - a. All viruses are parasites
   - b. Description - general
   - c. Pathogenic effects

5. Insect Borne Parasites:
   - a. Kinds
   - b. Life cycles
   - c. Vectors vs. carriers
   - d. Pathogenic effects
   - e. Precautions

6. Other forms of Parasitism:
   - a. Pseudo-Parasites
   - b. Host-parasite relationships
   - c. Future implications

ECOLOGY

1. Ecology Defined:
    - a. Topic objective
    - b. Scope
    - c. As it relates to man

2. Characteristics:
    - a. Definitions
    - b. Factors of the environment
    - c. Major habitats

3. Human Populations:
    - a. Population dynamics
    - b. Population history
    - c. Malthus and Darwin

4. Varieties of Man:
    - a. Man as a species
    - b. Human races
    - c. The meaning of race
    - d. Race and Culture

5. Domestication
    - a. Man's Relation with other organisms
    - b. Origin of Cultigen
    - c. Modification of Cultigens

6. Agricultural Biology:
    - a. The man made community
    - b. Pest control
    - c. Crop improvement

7. Science, Man and Nature:

    a. The scientific revolution
    b. The two cultures
        (1) Scientific
        (2) Humanistic
    c. Values of Biology

CYTOLOGY

1. Cells in General:

    a. Shapes
    b. Sizes
    c. All cells basically similar

2. Structure of Cells:

    a. Cell boundary
    b. The nucleus
    c. Endoplasmic reticulum
    d. Mitochondria

3. The Cell in Development:

    a. Growth
    b. Differentiation

4. Cell Continuity:

5. Tissue Cells:

    a. Muscle
    b. Connective
    c. Blood
    d. Nerve
    e. Epithelial

6. Some Physical Properties of Cell Functions:
   - a. Osmosis
   - b. Cell permeability
   - c. Synthesis of food materials
   - d. Gaseous exchange of cells

EVOLUTION

1. The origin of life:
   - a. Probably activating forces
   - b. Necessary elements of 'life'
   - c. Replicating mechanisms
2. Natural Selection:
   - a. Survival of the fittest
   - b. Selective forces
   - c. Over-breeding
   - d. Artificial vs. natural selection
3. Adaptation:
   - a. Basis for adaptation
   - b. Adaptive changes in populations
   - c. Evolutionary changes in populations
   - d. Simple examples of adaptation
4. Similarities and dissimilarities of Species:
5. Changes in Gene Frequencies
   - a. Factors inducing change
   - b. Conditions influencing changes
   - c. Hardy-Weinberg Law
   - d. Genetic death of genes

6. Gene Frequencies in Human Populations:
   - a. ABO blood groups
   - b. Sickle cell anemia frequencies
   - c. Albino frequencies in Latin American Populations

7. Evidence for evolution:
   - a. Paleontological
   - b. Bio geographical
   - c. Comparative anatomy

8. Evolution of Man:
   - a. Man's evolutionary history
   - b. Culture
   - c. Man's future as a species - speculation
   - d. Uniqueness of man as a species

BASIC SOCIOLOGY

Clare Heyne

Basic Objective: To awaken in the student an awareness of how social interaction has influenced his development; to illustrate this interaction with others in the community (family, peers, employment, social groups, etc.). By so doing, to illustrate individual importance, and self-improvement socially, thus making the student a "better" asset to the community.

Why is this important? Can only contribute to the community, if aware of the forces operating in society. This can be accomplished by insight into basic similarities, differences, attitudes, values, etc.

How will this be approached? By discussion of selections from the basic text, Sociology Through Literature, Coser, Prentice-Hall, cost $4.25. Additional topics will be suggested by science and English instructors. In addition, a list of sociological definitions will be distributed; the purpose of this list is to serve as a common basis for understanding for all students. For outside reference, copies of Sociology, (Paul H. Landis), shall be on reserve in the library.

TENTATIVE TOPICAL OUTLINE FROM SOCIOLOGY THROUGH LITERATURE

I. The Individual:

a. My First Goose
b. Shooting an Elephant
c. The Soft Touch of Grass
d. The Egg
e. Arrangement in Black and White
f. Art of Marking Differences
g. What Makes a Peer
h. The Doom of Nobility
i. The Lower Class Smell

- j. Shame
- k. The World of Migratory Workers
- l. An Other Directed Man
- m. The Natural History of a Mob
- n. Mob Passion

2. The Family:

- a. The Matriarch Arranges a Wedding
- b. When Six Wives Squabble
- c. Shino and Hamaji or When Duty is Stronger Than Love
- d. On the Importance of Having a Son
- e. The Perils and Dilemnas of Marital Choice
- f. A Happy Family
- g. An Authoritatian Father
- h. I Want to Know Why

3. Social Problems:

- a. Race Relations
  - (1) The Price of Keeping One's Place
  - (2) Learning Submission
  - (3) To Be A Negro
  - (4) On the Margin: Life Between Two Racial Worlds
  - (5) Huck Breaks the White Code
  - (6) "The Negro After Watts" Time, August 27, 1965

- b. Deviant Behavior
  - (1) Suicide
  - (2) The Monkey on the Back
  - (3) The Insane

- c. Urban Sociology

  - (1) Paris, The Scene and the Setting
  - (2) Other selections
  - (3) Post-Dispatch and specifics of St. Louis

MODERN BASIC MATHEMATICS

Thomas Iverson

The emphasis will be on concepts and not skills. Try to demonstrate a logical reasoning pattern, using math as the prime example. Introduce them to new ideas and concepts in mathematics; not something they will have had over and over before.

1. Other Numeration Systems:

   a. Babylonian
   b. Egyption
   c. Other Bases

2. Set Theory:

   a. Explain that it is basic to all mathematics
   b. "Define" a set, finite sets and infinite sets - empty set
   c. Cardinality of sets, one-one correspondence
   d. Operations with sets.
      (1) Unions, intersections, compliments
      (2) laws of operation
   e. Applications, arithmetic, algebra, geometry, logic

3. Logic:

   a. Necessity - Senses and experimentation not enough.
   b. Connectives, 'or', 'and', implies negation, equivalence
   c. Statements, sentences
   d. Truth tables
   e. Syllogism

4. Probability:

   a. Sample space
   b. Permutations

  - c. Combinations
  - d. Independent and Dependent events
  - e. Applications

5. Statistics:

  - a. Sampling
  - b. Arithmetic mean
  - c. Median, mode
  - d. Standard deviation
  - e. Interpretation of graphs and charts
  - f. Bell Curve

6. Math Systems:

  - a. Finite Systems
    - (l) Clock arithmetic
    - (2) Groups

  - b. Fields, our number system

SOURCES:

Exploring Mathematics on Your Own	Johnson, Glenn, Donovan
Introduction to Mathematics	Meserve & Sobel
Mathematics A Cultural Approach	Morris Kline

CONSUMER ECONOMICS

H. Mellone

Objectives:

1. Understand the concept of free enterprise, how The American Economic System operates, and how dependent we are upon business to satisfy our economic wants and needs.

2. To understand the application of business procedures to personal and family problems relating to earning an income, money management (savings or expenditures).

3. Understand the economic principles that are essential for participation as a citizen and voter in resolving local, state and national issues.

Description of American economic system and its effect on the consumer citizen:

1. Consumer in a free enterprise system
2. How Business is organized and operated

Forms of government protection for the consumer:

1. Government Functions that affect consumers
2. Specific Aids and protection provided by government agencies

An understanding of Bank Services, use of loan and credit services :

1. Using Bank Services
2. Understanding and using credit
3. Buying on the installment plan

Earning and Spending a management plan:

1. Managing on finances
2. Saving Program (Investment)
3. Buying and Spending Wisely

Protection through insurance:

1. Principles of insurance protection
2. Buying Life Insurance
3. What social security means to us.

The problem of obtaining a home:

1. Renting or buying a home
2. Financing the purchase of a home

Broad applications of economic principles as they relate to individuals, business and government:

1. Our share in National Income
2. The importance of money and credit
3. Values and prices and what they mean to us.
4. Problems of taxes, tariffs and public fines.

CONTEMPORARY ENGLISH

Joel Margulis

The course will not be directed to the small number of those students who seemingly possess college ability. The course, as a whole, will be directed toward enriching the students in their daily lives, through their acquaintance with literature of all types. The main course objective will be to correlate the literary experience with the individual life of each student, and, when possible, with related subjects within the team, in this case, sociology and biology.

Each student must be prepared to narrate orally the events of assigned pieces of literature, that is, be able to tell what happened in the story or play. This gives the student practice in speaking before a group, just as taking part in class discussion will give the student practice in speaking within the group.

With regard to the student of high ability, written assignments will give him ample opportunity to show writing capability, the most important single aspect for success in any regular college English course. A student showing the possibility for success will be assigned extra work and be given extra attention to supplement his work in the learning lab. Thus, such a student will not only be culturally enriched through his experience with literature but also given practical help in his step forward into regular English.

APPENDIX F

BIOGRAPHICAL DATA

APPENDIX F

PERSONAL DATA SHEET

NAME DUANE DONALD ANDERSON

ADDRESS 5438 Delmar Blvd., St. Louis, Mo. PHONE Pr. 1-8850

BIRTH DATE January 1, 1930 PLACE OF BIRTH Necedah, Wisc.

EDUCATION

University of Michigan - (1964 to present). Kellogg Fellow in Community College Administration.

Wayne State University - (1961). Summer Institute on Community College Administration.

Northwestern University - (1952-1955). Received M.A. in Secondary Guidance Counseling.

Wisconsin State University- La Crosse - (1947-1952). Received B.S. with a major in Elementary Education and a minor in Science.

WORK EXPERIENCE

Consultant - Community College Feasibility Study - Mahoning County, Ohio - (1964 to present).

President - Columbia County Teachers College - Columbus, Wisconsin - (1962 -1964).

President - Juneau County Teachers College, New Lisbon, Wisconsin - (1961-1962).

Instructor/Counselor - American Dependent Education Schools, Stuttgart, Germany - (1960-1961).

Science Instructor, Counselor and Coach - McKinely Junior High School, Kenosha, Wisconsin - (1952-1960).

ADDITIONAL EXPERIENCE

Assistantship in Department of Educational Psychology at Youngstown University - (1964 to present).

Legislative Chairman of the County College System in Wisconsin - (1962-1964).

Legislative Chairman of Kenosha Education Association - (1952-1960).

PERSONAL DATA SHEET

NAME LOUIS NELSON BOSSING

ADDRESS 1004 Skyline Dr., Carbondale, Ill. PHONE

BIRTH DATE March 25, 1893 PLACE OF BIRTH Portland, Oregon

EDUCATION

University of Chicago - (1925). Received Ph.D.

Northwestern University - (1922). Received A.M.

Garrett Biblical Institute - (1921). Received B.D.

Kansas Wesleyan University - (1917). Received A.B.

WORK EXPERIENCE

Distinguished Visiting Professor - Southern Illinois University - (1962 to present).

Visiting Professor - Indiana University - (1961-1962).

Professor of Education - Director of University High School and Director of Teacher Training - University of Oregon - (1928-1938).

Associate Professor of Education - University of Oregon - (1927-1928).

Head of Department of Education and Psychology and Director of Summer Sessions - Simpson College - (1924-1927).

ADDITIONAL EXPERIENCE

Fulbright Lecturer - University of Chile, Chile (1958).

Visiting Instructor - Summer Sessions:

1963 Arizona State College
1962 University of Maryland
1953 U.C.L.A.
1949 University of Southern California
1941 University of Texas
1936-38 College of New York
1930 University of Hawaii

Educational Consultant - Education Section G.H.Q., Japan - (1951-1952).

Curriculum Consultant - Salem, Oregon Public Schools - (1936-1938).

Secretary - Y.M.C.A. - Tulane University - (1919).

Director - Y.M.C.A. - Algiers Naval Station - New Orleans - (1918-1919).

Education Secretary - Army Y.M.C.A. - Camp Travis, Texas - (1917-1918).

PROFESSIONAL ACTIVITIES

Minnesota Cooperating Schools for Curriculum Study - Director - (1940-1950).

Oregon State Curriculum Committee - (1936-1938).

Oregon State Textbook Commission - member - (1930-1934).

Oregon Association Institutional Teachers Placement Agencies - President - (1930-1938).

Research Divison Inland Empire Association - Chairman - (1932-1934).

Oregon Educational Research Council - President - (1931-1933).

MEMBERSHIPS

National Educational Association
National Society for the Study of Education
American Association of School Administrators
American Educational Research Association
Minnesota Education Association
Minnesota Association of Secondary School Principals
Epsilon Sigma
National Association Secondary School -- Principals
National Conference on Core Teaching
Association for Supervision and Curriculum Development
Phi Delta Kappa
Pi Kappa Delta

PUBLICATIONS

"The Junior High School", (with Roscoe V. Cramer), 1965.

"Solving Our Problems in a Democracy", (with R.C. Faunce), 1956.

"Principles of Secondary Education" - 2nd Edition, 1955.

"Teaching in Secondary Schools" - 3rd Edition, 1952.

"Developing the Core Curriculum", 1951. Revised Edition 1958.

"Youth Faces Its Problems", (with R.R. Martin), 1950.

"Principles of Secondary Education", 1949. Revised Edition 1955.

"The Impact of the War on the Schools of Red Wing", (with Leo J. Brueckner), 1945.

"Minnesota Journal of Education" - Curriculum Section, 1943-1951.

"Progressive Methods of Teaching in Secondary Schools", 1935. Revised Editions 1942, 1952.

"The History of Legislation in Ohio 1850-1925", 1931.

"The High School", 1928-1933.

Numerous Magazine Articles and Book Reviews.

PERSONAL DATA SHEET

NAME ADAM G. CASMIER

ADDRESS 7835 Cornell, St. Louis, Missouri PHONE Pa. 1-1711

BIRTH DATE July 16, 1934 PLACE OF BIRTH New Orleans, La.

EDUCATION

St. Louis University - (1960 to present). Ph.D. candidate

University of Notre Dame - (1957). Received A.M. with a major in English.

Xavier University - (1957). Received B.A. with a major in Education and English and a minor in Mathematics and philosophy

WORK EXPERIENCE

Assistant Professor - The Junior College District of St. Louis - St. Louis County, Missouri (1963 to present).

Instructor - Vashon High School, St. Louis, Missouri - (1960-1963).

Instructor - Xavier University - (1957-1958).

ADDITIONAL EXPERIENCE

Laclede-Chouteau Institute - Instructor in creative writing - summers- (1964 to present).

PERSONAL DATA SHEET

NAME R. WILLIAM GRAHAM

ADDRESS 1063 Glenmoor, St. Louis, Mo. PHONE Yo. 6-2537

BIRTH DATE March 26, 1922 PLACE OF BIRTH California

EDUCATION

University of Southern California - (1952). Received Ph.D. in Education - major areas: Higher Education, Administration, and Teacher Training.

University of Southern California - (1948). Received M.S. with a major in Curriculum.

Pomona College - (1944). Received B.A. with a major in Mathematics and a minor in Physics.

WORK EXPERIENCE

Vice President/Campus Director - The Junior College District of St. Louis-St. Louis County, Missouri - (1964 to present).

President - Palo Verde College - (1962-1964).

Professor - University Extension, University of Southern California-(1963).

Dean of Men - Ventura College - (1958-1962).

Head Counselor - Ventura College - (1956-1958).

Associate Professor - East Stroudsburgh State Teachers College, Pa., Education, Educational Psychology, Elementary Teaching Methods, Demonstration School, Choir. - (1952-1956).

Visiting Professor - University of New Mexico - Teaching Methods - (1953).

Instructor - Pasadena City College - Theory, Harmony, Piano, Organ and Men's Glee Club - (1952-1953).

Instructor - South Pasadena Junior High School - English, Band Orchestra, General Music - (1950-1952).

Instructor - South Pasadena Senior High School - English, Band - (1949-1952).

ADDITIONAL EXPERIENCE

Consultant - National Teachers of English Conference - Tempe, Arizona - (1965).

Consultant - St. Louis College of Pharmacy - (1965)

Consultant - Civil Engineering Laboratory - Port Hueneme, California - (1961-1962)

Consultant - F.A. Owen Publishing Company - (1955-1956).

PUBLICATIONS

"A look at Student Activities in the Junior College", Junior College Journal, September, 1962.

"A follow-up Study of the Students Who Transfer from Ventura College to Selected Four-Year Institutions", 1960.

"A Prognostic Study of the Engineering Majors Who Entered Ventura College in the Fall of 1957", 1960.

"A Study of the Relative Aptitudes of the Students in the Four Phases of the Student Engineering Development Program at Ventura College", 1960.

"An Exploratory Study of the Feasibility of Mobile Breakwaters and Piers", U.S. Navy Civil Engineering Laboratory, 1960.

"A Study of the Exceptionally Talented Academic Students at Ventura College", 1958.

"Teachers' Opinions of their College Preparation for Teaching", *College and University*, 1957.

"A Maypole Dance", *The Instructor,* May, 1957.

"Praise and Thanksgiving" (An Anthem), H. W. Gray Publishing Company, 1957.

"A Creative Indian Music Project", *The Instructor,* October, 1957.

"A Summer Program of Youth Choirs", *Music Journal*, June, 1956.

"Discipline in the Youth Choir Program", *Music Journal,* January-February, 1955.

"Teach the Classics through Popular Music", *Music Educators Journal*, February, 1955.

"Public Relations or Music Education?", *The Director*, (Arkansas Music Educations), 1955.

"The Self-Effacing Music Education", *Music Journal*, February, 1954.

"Public Relations or Music Education?", *The School Executive,* October, 1954.

"Public Relations or Music Education?", *The Education Digest*, December, 1954.

"Developing the Volunteer Choir", *Music Journal*, December, 1953.

PROFESSIONAL ACTIVITIES

Educare
Delta Epsilon

American Association of Junior Colleges
National Education Association-Higher Education Section

PERSONAL DATA SHEET

NAME WILLIAM C. HAMLIN

ADDRESS 7230 Winchester, St. Louis 21, Mo. PHONE Co. 1-4946

BIRTH DATE November 13, 1926 PLACE OF BIRTH Little Rock, Ark.

EDUCATION

University of Missouri - (1962). Received Ph.D. in English

University of Missouri - (1953). Received M.A. in English

University of Missouri - (1951). Received A.B. in English

WORK EXPERIENCE

Associate Professor of English and Chairman, Division of Humanities - University of Missouri at St. Louis - (1964 to present).

Assistant Professor of English - University of Missouri at St. Louis - (1962-1964).

Instructor in English - University of Missouri at St. Louis - (1961-1962).

Instructor in English - University of Missouri at Columbia - (1953-1961).

MEMBERSHIPS

Advisory Council - Kinloch Cooperative School Project - member.

PUBLICATIONS

The Short Story, American Book Company, January, 1966.

Book Reviews for the St. Louis Post Dispatch and the Saturday Review.

PERSONAL DATA SHEET

NAME DANIEL C. JORDAN

ADDRESS 1639 S. 5th, Terre Haute, Ind PHONE Li. - 0479

BIRTH DATE June 2, 1932 PLACE OF BIRTH Nebraska

EDUCATION

University of Chicago - (1964). Received Ph.D. with a major in Human Development.

University of Chicago - (1960). Received M.A. with a major in Human Development.

Oxford University - (1959). Received M.A. with a major in Composition, Theory and History of Music.

University of Wyoming - (1950-1954). Received B. Mus.

WORK EXPERIENCE

Associate Professor of Psychology and Education - Indiana State University Terre Haute, Indiana - (1965 to present).

Instructor - Wilson Junior College - (1964-1965).

ADDITIONAL EXPERIENCE

Director - The Institute for Research in Human Behavior - Indiana State University, Terre Haute, Indiana - (1965 to present).

Resident Counselor - University of Chicago - Men's undergraduate resident Hall - (1960-1965).

Counselor - Association for Family Living - Chicago, Ill. - (1959-1962).

Attendant - University of Chicago Medical Clinic, Psychiatric Ward - (1959-1960).

PERSONAL DATA SHEET

NAME ROBERT J. KIBLER

ADDRESS 1004 Taylor Dr., Carbondale, Ill. PHONE 549-1995

BIRTH DATE October 6, 1934 PLACE OF BIRTH Ohio

EDUCATION

Ohio State University - (1962). Received Ph.D. in General Communication.

Ohio State University - (1959). Received M.A. with a major in Theatre and a minor in Radio and Television Programming.

Ohio State University - (1957). Received B.S. with a major in General Speech and a minor in Education.

WORK EXPERIENCE

Assistant Professor of Guidance - Southern Illinois University - (1962 to present).

Administrative Assistant - Southern Illinois University - (1963-1964).

Research Associate - Ohio State University - (1961-1962).

Instructor - Ohio State University - (1959-1961)

ADDITIONAL EXPERIENCE

Consultant to various organizations and institutions primarily in the field of communication.

PERSONAL DATA SHEET

NAME CARL KISSLINGER

ADDRESS 7434 Melrose, University City, Mo. PHONE Pa. 7-9264

BIRTH DATE August 30, 1926 PLACE OF BIRTH St. Louis, Mo.

EDUCATION

St. Louis University - (1952). Received Ph.D. with a major in Geophysics, and a minor in Math.

St. Louis University - (1949). Received M.S. in Geophysics

St. Louis University - (1947). Received B.S. in Petroleum Geophysics

WORK EXPERIENCE

Professor - St. Louis University - (1961 to present).

Associate Professor - St. Louis University - (1957).

Assistant Professor - St. Louis University - (1953).

Instructor in Geophysics and Geophysical Engineering - St. Louis University - (1949).

ADDITIONAL EXPERIENCE

Consultant to Structures Division, Air Force Special Weapons Center - (1958 to present).

Consultant to a number of industrial organizations (1954 to present).

MEMBERSHIPS

American Geophysical Union
Society of Exploration Geophysicists
Seismilogical Society of America

PUBLICATIONS

"The Generation of the Primary Seismic Signal of a Contained Explosion" VSIAC State-of-the-Art-Report, Institute of Science and Technology, The University of Michigan, April, 1963.

"Seismic Waves Generated by Chemical Explosions", Final Report AF 19(604)-7402, Project 8652, Tsk 865201, Air Force Cambridge Research Laboratories, Office of Aerospace research, United States Air Force, Bedford, Massachusetts, with Emil J. Mateker, Jr. and Thomas V. McEvilly, July 31, 1963.

Various papers in appropriate professional journals - (1959-1963).

PERSONAL DATA SHEET

NAME ALFRED L. PUTNAM

ADDRESS University of Chicago PHONE Mi. 3-0800 Ex.2750

BIRTH DATE March 10, 1916 PLACE OF BIRTH New York

EDUCATION

Harvard University - (1942). Received Ph.D. with a major in Algebra.

Harvard University - (1939). Received M.A. with a major in Mathematics.

Hamilton College - (1938). Received B.S. with a major in Mathematics.

WORK EXPERIENCE

Professor of Mathematics - University of Chicago - (1945 to present).

Instructor of Mathematics - Yale University - (1942-1945).

ADDITIONAL EXPERIENCE

Entebbe Mathematics Workshop - ESI African Education Program - Chairman Teacher Training Group - (1963-1964).

Fulbright Visitor - University of Western Australia - (1960).

Survey of Recent East European Literature in School & College Mathematics - University of Chicago - (1956).

Institution for Advance Study at Princeton, New Jersey - (1948-1949).

MEMBERSHIPS

American Math Society
Math Association of America
American Association for the Advancement of Science

PERSONAL DATA SHEET

NAME RICHARD C. RICHARDSON, JR.

ADDRESS 1521 Friar Lane, St. Louis, Mo. PHONE Ta. 1-3431

BIRTH DATE September 10, 1933 PLACE OF BIRTH Burlington, Vermont

EDUCATION

University of Texas - (1963). Received Ph.D. with major in Educational Administration and a minor in Sociology

Michigan State University - (1958). Received M.A. with a major in Guidance and Counseling and a minor in English.

Castleton State College (Vermont) - (1954). Received B.S. with a major in Education and a minor in English.

WORK EXPERIENCE

Dean of Instruction - The Junior College District of St. Louis - St. Louis County, Missouri - (1963 to present).

Instructor/Counselor - Vermont College - (1958-1961).

ADDITIONAL EXPERIENCE

Consultant, Midwest Leadership Conference, 1965.

Consultant, Chicago Conference for Appraisal of Junior College Student Personnel Programs, 1964.

PUBLICATIONS

"The Two-Year College: A Social Synthesis", Co-author with Clyde Blocker and Robert Plummer, Prentice Hall, 1965.

Various papers in appropriate professional journals, 1963 to present.

PERSONAL DATA SHEET

NAME THEO M. SHEA

ADDRESS 5510 Waterman, St. Louis, Mo. PHONE Fo. 7-9573

BIRTH DATE August 2, 1903 PLACE OF BIRTH Gorham, New Hampshire

EDUCATION

Columbia University - (1948-1952). Major areas: Social Foundations, Remedial Reading.

Rutgers University - (1945-1948). Received B.S. - major areas: Guidance, Psychology.

Seton Hall University - (1941).

Montclair Teachers College - (1940).

New York University - (1939).

Neward Teachers College - (1935).

WORK EXPERIENCE

Associate Professor - St. Louis University - (1952 to present).

Instructor - Newark Teachers College - (1946-1950).

Supervisor of Reading - New Jersey - (1942-1943).

Principal - Elementary School - New Jersey - (1929-1942).

ADDITIONAL EXPERIENCE

Associate Director and Coordinator - Human Relations Workshops in foreign Countries - (1943 to present).

Associate Director, Human Relations Center for Training and Research - (1952 to present).

Director - Human Relations - St. Louis University

Visiting Lecturer - Human Relations Workshop - Denver University - (1948-1950).

Staff Member - Children's Bureau - New Jersey - (1946-1951).

Director - Reading Clinic - New Jersey - (1946-1951).

PROFESSIONAL ACTIVITIES

Council on Human Relations, State of New Jersey - member

Governor's Commission on Human Relations for the State of New Jersey - member

Metropolitan School Study Council of Columbia University and Chairman of the Committee on Human Relations.

National Association of Intergroup Relations Officials - Chairman

Christain Education Committee Episcopal Diocese - member

Red Cross Planning Committee - Regional Workshop - member

Committee for in-service training of teachers in Riverview Gardens - Chairman

MEMBERSHIPS

National Education Association
Association for Supervision and Curriculum Development
Association for Childhood Education International
Adult Education Association
National Association for the Teachers of Reading
American Association of University Professors
American Association of University Women
Inter-racial Council
Who's Who in American Women
Who's Who in the Midwest
Who's Who in Education

PERSONAL DATA SHEET

NAME STEVEN VAGO

ADDRESS 808 Leland, St. Louis, Missouri PHONE Pa. 7-0379

BIRTH DATE June 12, 1937 PLACE OF BIRTH Debrecen, Hungary

EDUCATION

Washington University - (1965). Ph.D. candidate

Washington University - (1963). Received M.A. in Sociology.

University of Alabama - (1961). Received B.A. with a major in Sociology and minor in Psychology.

WORK EXPERIENCE

Assistant Professor - The Junior College District of St. Louis - St. Louis County, Missouri - (1965 to present).

Assistant Professor - Southern Illinois University - (1963-1965).

Lecturer - Washington University Medical School - (1963).

Instructor - Washington University Evening College - (1963).

Research Assistant - Washington University - (1961-1963).